

General Production Programme

Connectors

- Unipole from 2 to 150 Amps
- Coaxial 50 Ω and 75 Ω
- ❖ Coaxial 50 Ω (NIM-CAMAC)
- Coaxial 50 Ω for frequency up to 12 GHz
- Coaxial 50 Ω SMA
- Multicoaxial 50 and 75 Ω
- Multipole from 2 to 106 contacts
- High Voltage 3, 5, 8, 10, 15, 30, and 50 kV dc
- Multi High Voltage 3, 5, and 10 kV dc
- Triaxial 50 and 75 Ω
- Quadrax
- Mixed: High Voltage (HV) + Low Voltage (LV)
- Mixed: Coax + LV
- Thermocouple
- Multithermocouple
- Fibre optic singlemode
- Fibre optic multimode
- Mixed: fibre optic + LV
- For OPTABALL® fibre optic singlemode
- Fluidic
- Multifluidic
- Mixed: fluidic + LV
- Subminiature
- Miniature
- Plastic
- ❖ Printed circuit board
- Remote handling
- ❖ Watertight
- ❖ Sealed (pressure and/or vacuum)
- ❖ With plastic outer shell
- ❖ With aluminium outer shell
- ❖ With stainless steel outer shell
- ❖ With special radiation resistant insulator material
- ❖ With screw thread coupling for very high pressure
- ❖ With microswitch

Adaptors

- ❖ For BNC, C, UHF, N, CINCH connectors
- ❖ For GEN-RADIO, SMA connectors
- For TNC connectors

Patch Panels

- For audio-mono applications: triax or 3 contacts (with or without commutator)
- For audio-stereo applications: quadrax or 6 contacts
- For video applications: coax 75 Ω
- For video HDTV applications: 3 coax 75 Ω + 2LV
- For fibre optic applications

Accessories

- Insulator for crimp contacts
- Crimp contacts
- Coaxial contacts
- Fibre optic contacts
- Fibre optic ferrules
- ❖ Caps
- ❖ Strain relief
- ❖ Insulating washers
- Double plastic panel washers
- ❖ Locking washers
- ❖ Tapered washers
- ❖ Hexagonal nuts
- ❖ Round nuts
- ❖ Conical nuts
- ❖ Earthing washers
- Lead-through with cable collet

Tools

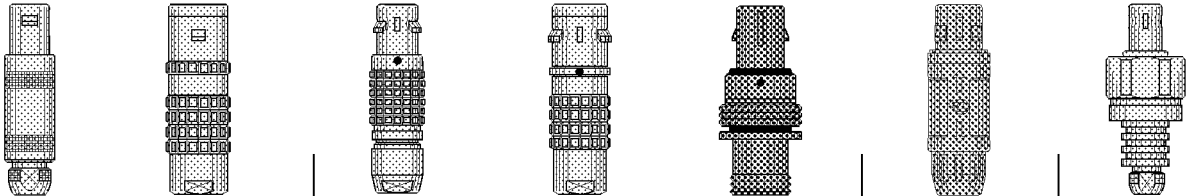
- ❖ Spanners
- ❖ Crimping tools
- Positioners
- ❖ Crimping dies
- ❖ Extractors
- Fibre optic termination workstation
- Fibre optic polishing tools

On request

- Filtered connectors
- Connectors with special alloy housing
- Mixed special connectors
- ❖ Assembly onto cable

❖ Connectors, accessories, and tools found in this catalogue.

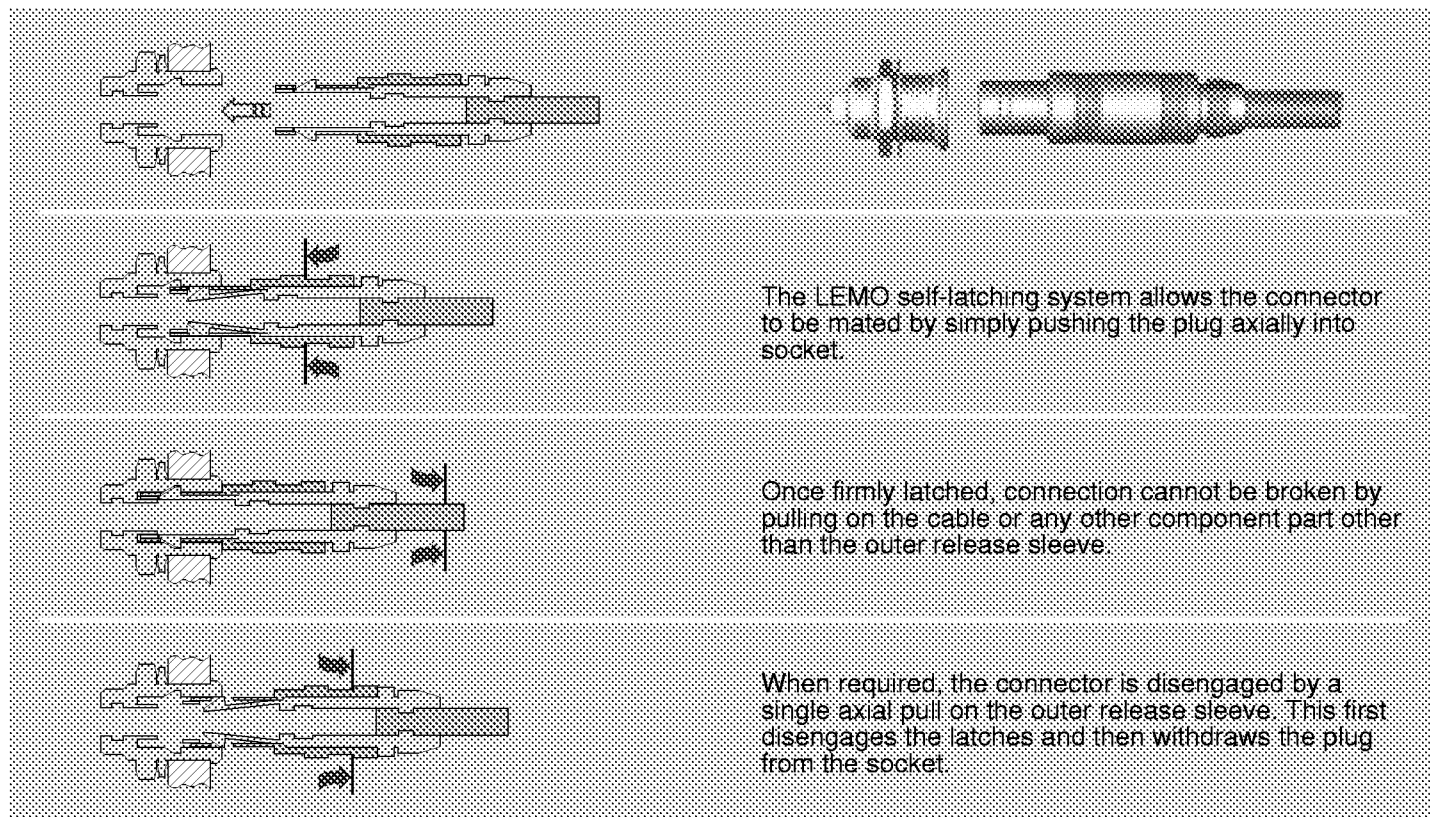
Main Characteristics and Types



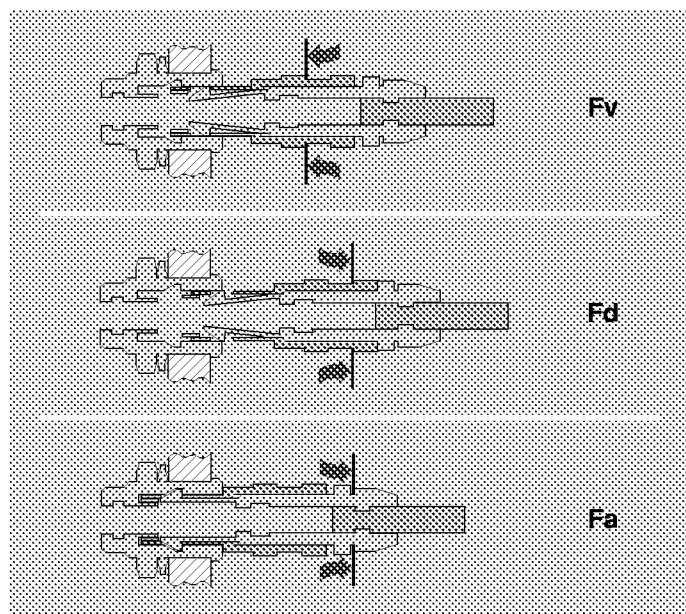
| Series | STANDARD | WATERTIGHT | KEYED | KEYED WATERTIGHT | PLASTIC | SCREW |
|----------|--|-------------------------|------------------------------------|-------------------------|-------------------------|---------------------------------------|
| | Q1 (Minax) 00 (NIM-CAMAC) R0 0S to 6S 0A / 4A 1D / 2C 1Y-3Y-6Y | 0E to 6E 3T 4M | 00 (multipin) 0B to 5B 2G-5G | 0K to 5K 0F to 5F | 3P | 0S EA 0V to 5V 0W-2W |
| Latching | Push-Pull | | | | | Screw |
| Key | Stepped insert (Half-Moon) | Key (G) or key-way code | | Key (N) or key-way code | Key (G) or key-way code | Key (G) or stepped insert (Half-Moon) |
| Shell | Metal or plastic | | Metal | | Plastic | Metal |
| Insert | Stepped insert (Half-Moon) | Cylindrical | | | | |
| Contact | Solder or Print | Solder, Crimp or Print | | | | Solder |

LEMO's Push-Pull Self-Latching Connecting System

This self-latching system is renowned worldwide for its easy and quick mating and unmating features. It provides absolute security against vibration, shock or pull on the cable, and facilitates operation in a very limited space.



Mechanical Connecting Characteristics



F_v: average latching force = 9 N

F_d: average unmatting force with axial pull on the outer release sleeve = 7 N

F_a: average pull force with axial pull on the collet nut = 120 N

Notes: the forces were measured on outer shells not fitted with contacts.

The mechanical endurance represents the number of cycles after which the latching system is still effective (1 cycle = 1 latching/unlatching – 300 cycles per hour).

Mechanical endurance: 5000 cycles.

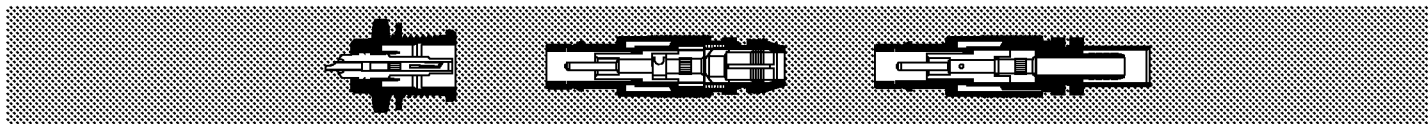
The values were measured according to the standard MIL-STD-1344A method 2013.1.

1N = 0,102 kg.

Series and Types

| | Series | Types | | | | | | | | | | | | | | | | | | | | | |
|------------------|--------|---------|--------------|--------------|----------|--------------|---------------|---------------|----------|-----------------------------------|--------------------|---------------|---------------|-----------------|------------------|----------------------------|-------------------|---------------|---------|--------------|--------------------|--------------|---|
| | | Unipole | Coaxial 50 Ω | Coaxial 75 Ω | Multiple | High Voltage | Triaxial 50 Ω | Triaxial 75 Ω | Quadriax | Multi High Voltage (Keyed series) | Multi High Voltage | Multi Coaxial | Mixed HV + LV | Mixed Coax + LV | Mixed Triax + LV | Fibre Optic (single fibre) | Multi Fibre Optic | Mixed FO + LV | Fluidic | Multifluidic | Mixed fluidic + LV | Thermocouple | |
| Standard | 01 | | ● | | | | | | | | | | | | | | | | | | | | |
| | 00 | ● | ⊗ | | | | ● | | | | | | | | | | | | ● | | | | |
| | RD | | ● | | | | | | | | | | | | | | | | | | | | |
| | DA | | ● | ● | | | | | | | | | | | | | | | | | | | |
| | 0S | ● | ● | | ● | ● | ● | | | | | | | | | | | | | | | | ● |
| | 1S | ● | ● | ● | ● | ● | ● | | | | | | | | | | | | | | | | ● |
| | 2S | ● | ● | ● | ● | ● | ● | ● | | | | | | ● | | | | | | | | | ● |
| | 3S | ● | ● | ● | ● | ● | ● | ● | | | ● | | | ● | ● | | | | | | | | |
| | 4S | ● | ● | ● | ● | ● | ● | ● | | | ● | ● | | ● | ● | | | | | | | | |
| | 5S | ● | ● | ● | ● | ● | ● | ● | | | ● | ● | ● | ● | ● | | | | | | | | |
| | 6S | | | | ● | | | | | | | ● | | ● | | | | | | | | | |
| | 1D | | | | | | | | ● | | | | | | | | | | | | | | |
| | 2C | | ● | | ● | | | | | | | | | | | | | | | | | | |
| | 4A | | | | | | | ● | | | | | | | | | | | | | | | |
| 1Y | | | | | ● | | | | | | | | | | | | | | | | | | |
| 3Y | | | | | ● | | | | | | | | | | | | | | | | | | |
| 6Y | | | | | ● | | | | | | | | | | | | | | | | | | |
| Watertight | 0E | ● | ● | | ● | ● | ● | | | | | | | | | | | | | | | ● | |
| | 1E | ● | ● | ● | ● | ● | ● | | | | | | | | | | | | | | | ● | |
| | 2E | ● | ● | ● | ● | ● | ● | ● | | | | ● | | | | | | | | | | ● | |
| | 3E | ● | ● | ● | ● | ● | ● | ● | | ● | | ● | ● | | | | | | | | | | |
| | 4E | ● | ● | ● | ● | ● | ● | ● | | | | ● | ● | ● | | | | | | | | | |
| | 5E | ● | | | ● | | | | | ● | ● | ● | ● | ● | | | | | | | | | |
| | 6E | | | | ● | | | | | | ● | | ● | ● | | | | | | | | | |
| | 3T | | | ● | | | | ● | | | | | | | | | | | | | | | |
| 4M | | | | | | ● | ● | | | | | | | | | | | | | | | | |
| Keyed | 00 | | | | ● | | | | | | | | | | ● | | | | | | | | |
| | 0B | | | | ● | | | | | | | | | | ● | | | ● | | | | ● | |
| | 1B | | | | ● | | | | | | | ● | | | | | | | | | | ● | |
| | 2B | | | | ● | | | | | | | ● | ● | ● | | | | ● | | | ● | ● | |
| | 3B | | | | ● | | | | | | ● | ● | ● | ● | | | ● | ● | | ● | ● | | |
| | 4B | | | | ● | | | | ● | | ● | ● | ● | ● | | ● | ● | | ● | ● | | | |
| | 5B | | | | ● | | | | ● | | ● | ● | ● | ● | ● | | ● | ● | | ● | ● | | |
| | 2G | | | | ● | | | | | | | | | | | | | | | | | | |
| Keyed Watertight | 0K | | | | ● | | | | | | | | | | | | | ● | | | | ● | |
| | 1K | | | | ● | | | | | | | ● | | | | | | | | | | ● | |
| | 2K | | | | ● | | | | | | | ● | ● | | | | | ● | | | ● | ● | |
| | 3K | | | ● | ● | | | | | | ● | ● | ● | ● | | ● | ● | | ● | ● | | ● | |
| | 4K | | | | ● | | | | ● | | ● | ● | ● | ● | | ● | ● | | ● | ● | | ● | |
| | 5K | | | | ● | | | | ● | | ● | ● | ● | ● | ● | | ● | ● | | ● | ● | | |
| Plastic | 3P | | | | ● | | | | | | | ● | ● | | | | | ● | | | | | |
| Screw | 03 | | ● | | ● | | | | | | | | | | | | | | | | | | |
| | EA | | | | | | | | | | | | | | ● | | | | | | | | |
| | 0V | ● | ● | | ● | | ● | | | | | | | | | | | | | | | ● | |
| | 1V | ● | ● | ● | ● | | ● | | | | | | | | | | | | | | | ● | |
| | 2V | ● | ● | ● | ● | | ● | ● | | | | | ● | | | | | | | | | ● | |
| | 3V | ● | ● | ● | ● | | ● | ● | | ● | | | ● | ● | | | | | | | | | |
| | 4V | ● | ● | ● | ● | | ● | ● | | | | ● | ● | ● | | | | | | | | | |
| | 5V | ● | | | ● | | | | | ● | ● | | ● | ● | | | | | | | | | |
| 2W | | | | ● | | | | | | | | ● | ● | | | | | ● | | | ● | ● | |

General Characteristics



Outer Shell

Brass

LEMO series 00 connectors have a brass outer shell as standard, and this is suitable for most general purpose applications, including civilian and military.

The brass outer shells have a nickel-plated surface which ensures very good protection against most atmospheres. Alternative protective coatings are available:

- Nickel-chrome offering higher protection against salt air and most corrosive agents
- Nickel-gold
- Nickel-black chrome. After the black chrome treatment, the part is coated with a protective film.

Aluminium Alloy

Aluminium alloy outer shells find numerous applications where light weight is a predominant factor; such as in the aeronautics and space industries, and for portable and mobile equipment.

These materials have high mechanical strength and

excellent resistance to corrosion.

The shell surface is protected by anodizing which is available in six colours: blue, yellow, black, red, green, and natural.

Plastic Materials

A PEEK beige coloured outer shell is available which offers excellent insulating properties and is mostly used in the medical industry. This material is suitable for gas or vapour sterilization.

Other Metallic Components

In general, other components are manufactured from brass. However, bronze is used where good elasticity is required (for example: earthing crown).

These parts are nickel or nickel-gold plated depending on the utilization.

Materials and Treatment

| Component | Material (Standard) | Surface Treatment (µm) | | | | | | | | | | |
|--------------------------------------|------------------------------------|------------------------|----|--------|----|-----|------|----|-----|--------------|----|----|
| | | Nickel | | Chrome | | | Gold | | | Black Chrome | | |
| | | Cu | Ni | Cu | Ni | Cr | Cu | Ni | Au | Cu | Ni | Cr |
| Outer shell, collet nut, conical nut | Brass (UNS C 38500) | 0.5 | 3 | 0.5 | 3 | 0.3 | 0.5 | 3 | 0.5 | – | 1 | 2 |
| | Alu. alloy (AA 6012) | anodized | | | | | | | | | | |
| | PEEK (MIL-P-46183) | beige coloured | | | | | | | | | | |
| Earthing crown | Cu-Be (UNS C 17300) | 0.5 | 3 | – | – | – | 0.5 | 3 | 1.5 | – | – | – |
| Latch sleeve | Special Brass | 0.5 | 3 | – | – | – | 0.5 | 3 | 1.5 | – | – | – |
| Crimp ferrule | Copper (UNS C 18700) | 0.5 | 3 | – | – | – | 0.5 | 3 | 1.5 | – | – | – |
| Locking washer | Bronze (UNS C 52100) | 0.5 | 3 | – | – | – | 0.5 | 3 | 0.5 | – | – | – |
| Hexagonal nut | Brass (UNS C 38500) | 0.5 | 3 | – | – | – | 0.5 | 3 | 0.5 | – | – | – |
| | Alu. alloy (AA 6012) ¹⁾ | anodized | | | | | | | | | | |
| Other metallic components | Brass (UNS C 38500) | 0.5 | 3 | – | – | – | 0.5 | 3 | 0.5 | – | – | – |
| Sealing glands | Silicone or FPM | without treatment | | | | | | | | | | |

Notes: the surface treatment standards are as follows:

– nickel QQ-N-290A, or MIL-C-26074C

– chrome QQ-N-320B

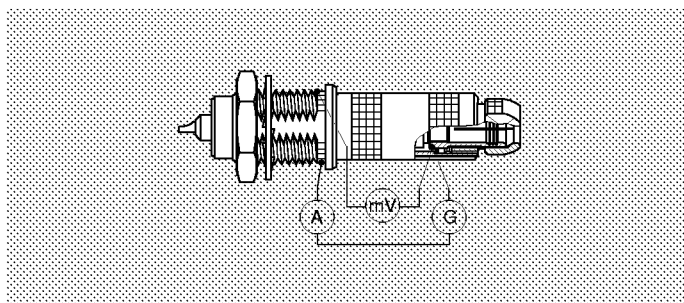
– gold MIL-G-45204C type I, class 1 (1.5 µm) class 00 (0.5 µm)

– black chrome MIL-C-14538C

¹⁾ supplied only with aluminium alloy free or fixed sockets.

Electrical Characteristics

Screen continuity: according to test MIL-STD-1344A, method 3007.



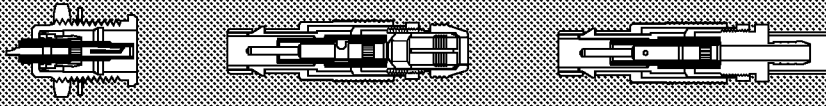
R₁: Values with earthing crown and latch sleeve or inner-sleeve nickel plated.

R₂: Values with gold-plated earthing crown and nickel plated latch sleeve or inner-sleeve.

R₃: Values with earthing crown and gold-plated latch sleeve or inner-sleeve.

| R ₁ (mΩ) | R ₂ (mΩ) | R ₃ (mΩ) |
|------------------------|------------------------|------------------------|
| 3.5 | 2.8 | 2.0 |

Testing current: 1A
A = Ammeter
mV = Millivoltmeter
G = Generator



Insulator

Technical Description

LEMO uses virgin quality PTFE for the insulator material of coaxial connectors, which guarantees excellent insulating properties.

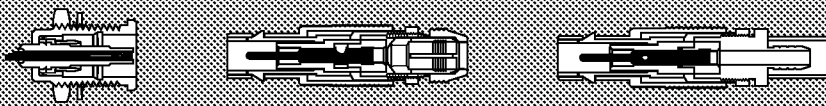
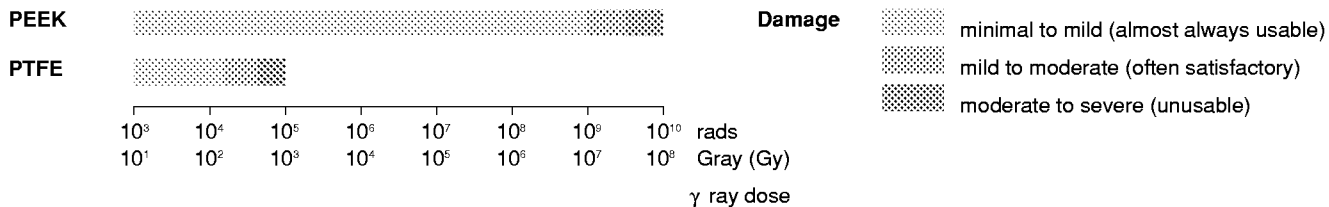
LEMO also proposes PEEK (Polyether Etherketone). Its higher mechanical strength and excellent radiation resistance make it ideal for most applications.

Technical Characteristics

| Property | Test method | Unit | PEEK | PTFE |
|--|-------------|--------------------------|-----------|----------------|
| Dielectric strength | ASTM D 149 | kV/mm | 19 - 25 | 17.2 - 24 |
| Volume resistivity at 50% HR and 23°C | ASTM D 257 | $\Omega \cdot \text{cm}$ | 10^{16} | 10^{18} |
| Surface resistivity | ASTM D 257 | Ω | 10^{15} | 10^{17} |
| Thermal conductivity | ASTM C 177 | W/K • m | 0.25 | 0.23 |
| Comparative tracking index | IEC 112 | V | CTI 150 | CTI 500 |
| Dielectric constant (10 ⁶ Hz) | ASTM D 150 | – | 3.2 - 3.5 | 2 - 2.1 |
| Dissipation factor (10 ⁶ Hz) | ASTM D 150 | – | < 0.005 | < 0.0003 |
| Continuous service temperature | – | °C | 250 | 260 |
| Water absorption in 24h at 23°C | ASTM D 570 | % | < 0.3 | < 0.01 |
| Radiation resistance | – | Gy | 10^7 | $2 \cdot 10^2$ |
| Flammability rating | UL 94 | – | V 0 | V 0 |

Note: the technical data contained in this chapter gives a general information about plastic materials used by LEMO as electrical insulator materials. LEMO reserves the right to propose new material which would have higher technical characteristics and to withdraw any material contained in this publication or others from LEMO and its subsidiary companies. LEMO only uses granulated, powdered plastic materials or bars from specialized suppliers. LEMO is not responsible, in any case, for these materials.

Radiation resistance



Electrical Contact

Technical Description

The secure, reliable electromechanical connection achieved with LEMO female contacts is mainly due to two important design features:

1. **Prod proof entry** which ensures perfect concentric mating even with well used and/or carelessly handled connectors.
2. **The pressure spring** that maintains a constant, even force on the male contact when mated. The leading edge of the spring is chamfered to slide smoothly on the male contact, preserving the gold-plated surface treatment and preventing undue wear.

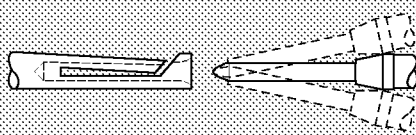
Contact Material

LEMO female electrical contacts are made from bronze (UNS C 54400). Bronze is chosen because of its high modulus of elasticity, its excellent electrical conductivity and a high mechanical strength.

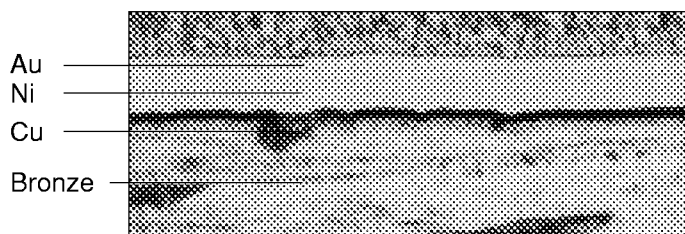
LEMO male solder and print contacts are made from brass (UNS C 38500). Male crimp contacts are made from brass (UNS C 34500) which is ideal for crimping onto the electrical conductor.

Conductor retention method

Both male and female contacts are available in crimp, solder or print versions.



Materials and Treatments

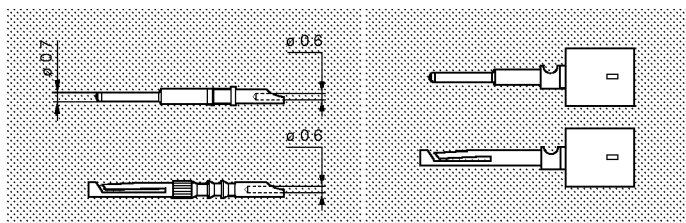


Notes: the standard surface treatments are as follows:
 – Nickel QQ-N-290A or MIL-C-26074C
 – Gold MIL-G-45204C, type I, class 1.

| Type | Material (Standard) | Surface treatment (μm) | | |
|---------------|----------------------|-------------------------------------|----|-----|
| | | Cu | Ni | Au |
| Male solder | Brass (UNS C 38500) | 0.5 | 3 | 1.5 |
| Male crimp | Brass (UNS C 34500) | | | |
| Male print | Brass (UNS C 38500) | | | |
| Female solder | Bronze (UNS C 54400) | 0.5 | 3 | 2.0 |
| Female crimp | | | | |
| Female print | | | | |

Solder Contacts

The conductor bucket of these contacts is machined at an angle to form a cup into which the solder can flow.

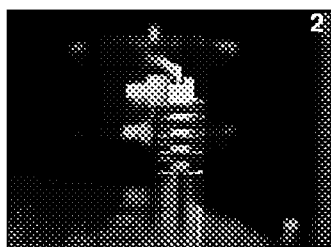
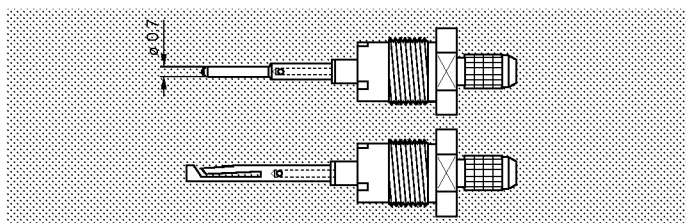


Crimp Contacts

The square form crimp method is used (MIL-C-22520F, type2) (photo 1).

The crimp method requires a controlled compression to obtain a symmetrical deformation of the conductor strand and of the contact material. The radial hole in the side of the contact enables correct positioning of the conductor within the contact to be verified. A good crimping is characterized by a small conductor section reduction and by the quite closed free spaces.

The LEMO crimp contacts are factory annealed to relieve internal stresses, and reduce the risk of the material work hardening during the crimping process. During this process, an induction heating machine designed by LEMO's Research and Development Department is used (photo 2).

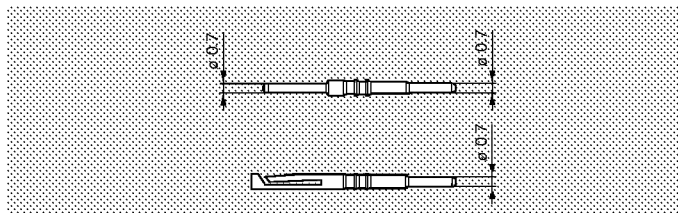


Features of the LEMO crimp contacts:

- Quick and simple assembly
- Insulator is not heated during contact to conductor assembly
- High temperature applications possible
- Increased conductor retention force

Print contacts

Print contacts are available in certain connectors versions, mostly for the straight or elbow sockets models. Connection is made on flexible or rigid printed circuits by soldering



Contact Resistance in Relation to Numbers of Mating Cycles

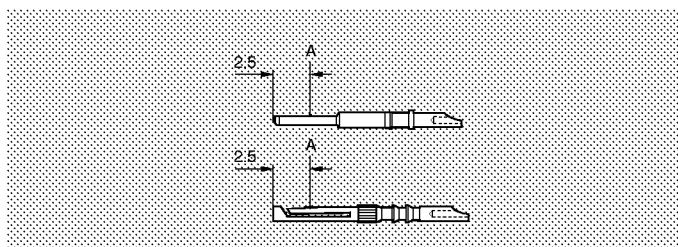
(Corrosion according to MIL-STD-202, method 101D).

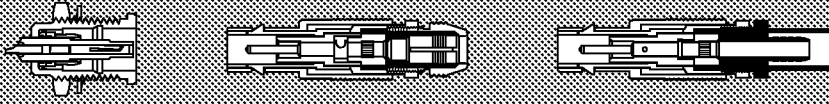
| Contact resistance ($\text{m}\Omega$) | | |
|---|-------------|-------------|
| 1000 cycles | 3000 cycles | 5000 cycles |
| 5.6 | 5.7 | 6.1 |

Thickness comparison between the outside and the inside of female contacts

| male (μm) | Gold thickness ¹⁾ | |
|------------------------|------------------------------|------------|
| | outside (μm) | inside (%) |
| 1.5 | 2 | 60 |

Note: 1) minimal thickness according to MIL-G-45204C, type I, class 1.
 A = test point





Cable Fixing

Cable fixing onto LEMO connectors is determined by the connector model. This is achieved either with a cable collet system or with hexagonal crimping (MIL-C-22520F, type 2).

The collet system cable fixing is made without any specific tooling. The crimping method guarantees a good electrical continuity of the shield which improves greatly the shielding efficiency of the cable/connector link.

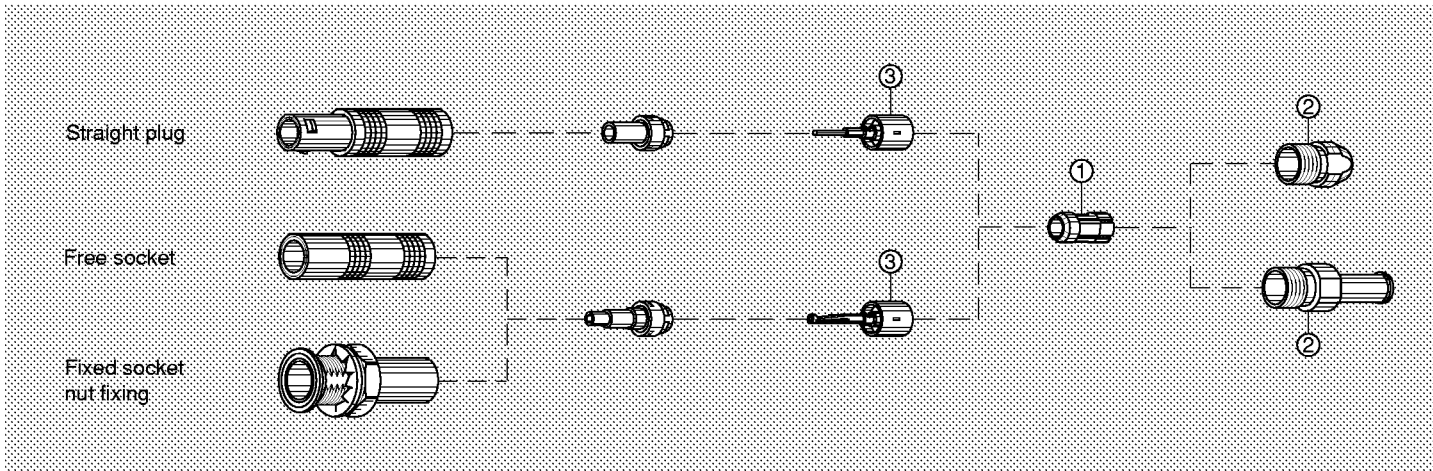
Material and Treatment

| Component | Material (Standard) | Surface Treatment (µm) | |
|-----------------|----------------------|------------------------|----|
| | | Cu | Ni |
| Earthing sleeve | Brass (UNS C 38500) | 0.5 | 3 |
| Collet | Brass (UNS C 38500) | 0.5 | 3 |
| Crimp ferrule | Copper (UNS C 18700) | 0.5 | 3 |
| Collet nut | Brass (UNS C 38500) | 0.5 | 3 |

Note: collet nut tightening torque: maximum 0.25 Nm (1N = 0.102 kg)

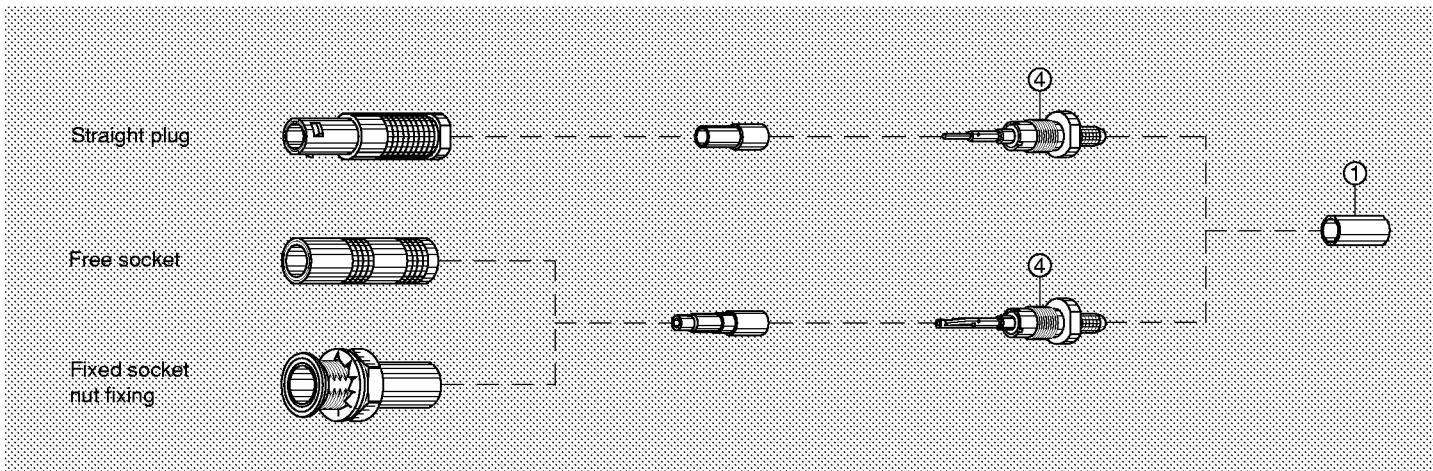
Type C Cable Clamping

This system has an earthing sleeve ③ and a collet ① which is compressed by the collet nut ② to ensure a good clamp onto the cable. When assembling the connector, the cable shield is gripped between the earthing sleeve and the collet.



Type E Crimping

The back end of the crimp nut ④ which receives the shield braid, is milled to ensure a good retention of the shield once crimped.



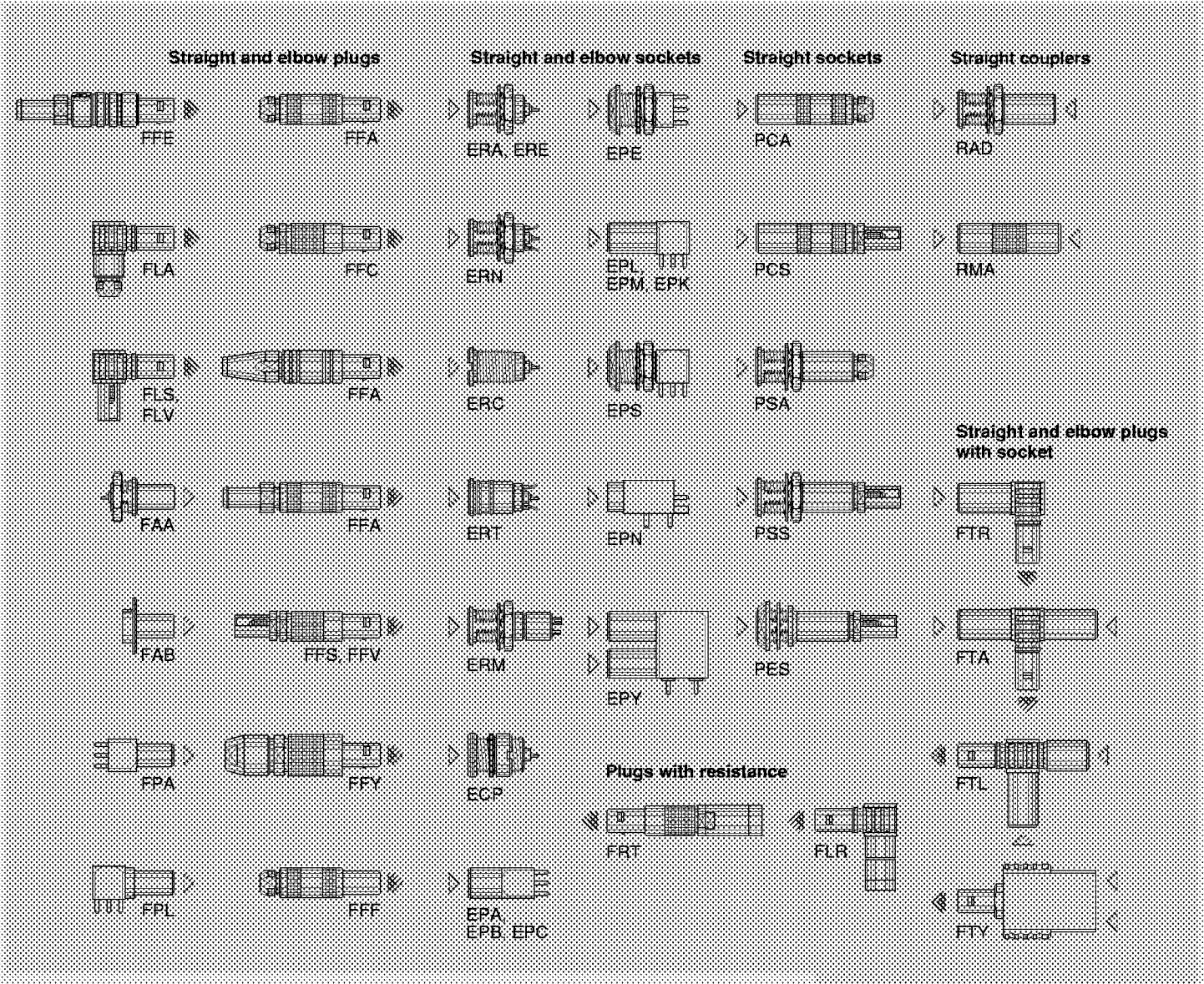
Series 00 (NIM-CAMAC-CD/N 549)

Introduction

The 00 series is a range of 50 Ω coaxial connectors. They are suitable for a wide variety of applications particularly in measurement, control system and nuclear physics, having formed the basis for the NIM-CAMAC-CD/N 549 standard. LEMO 00 connectors offer customers many benefits including:

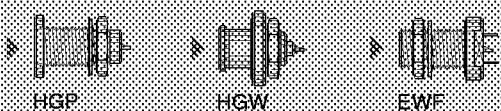
- Self-latching push-pull system
 - Aesthetically pleasing appearance
 - Small size
- High packing density
 - Rugged construction
 - Ease of use
- Low weight
 - Reliable performances
 - Wide choice to suit application

Interconnections

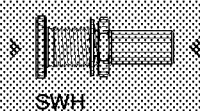


Watertight or vacuumtight models

Straight sockets



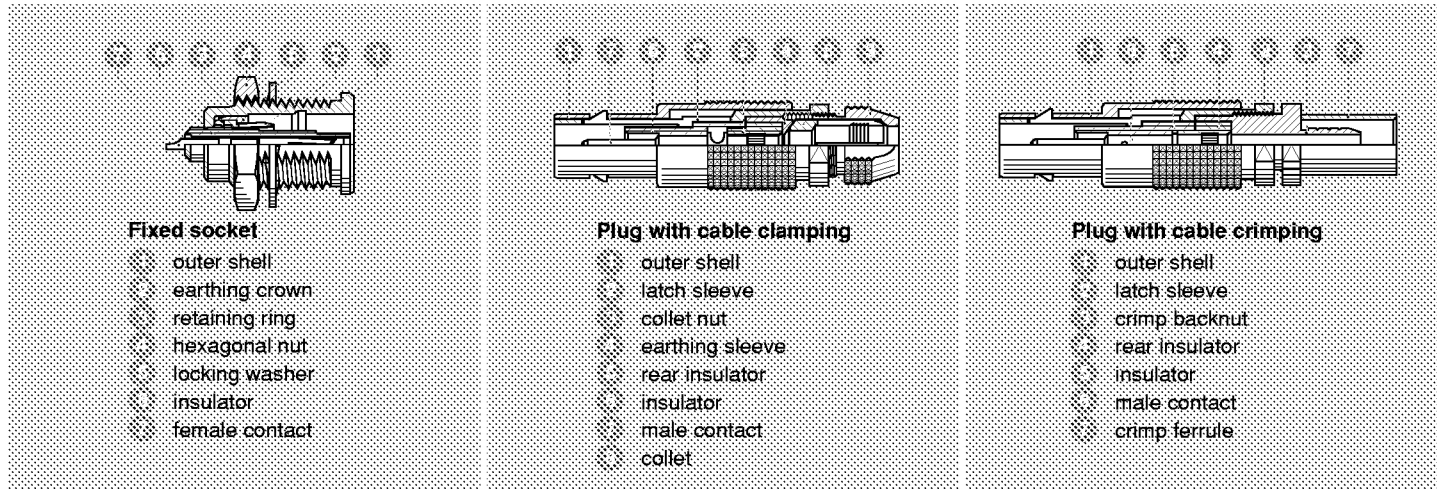
Straight coupler



Models Description

| | | |
|--|--|--|
| ABA Adaptor from LEMO socket to BNC plug | EPK Elbow socket (90°) for printed circuit with clearance under the body | FFF Straight plug, non-latching, with cable collet |
| ABB Adaptor from LEMO fixed socket to BNC socket | EPL Elbow socket (90°) for printed circuit | FFS Straight plug with cable crimping |
| ABC Adaptor from LEMO socket to BNC socket | EPM Elbow socket (90°) for printed circuit (long studs) | FFY Straight plug with cable collet |
| ABD Adaptor from LEMO socket to BNC fixed socket | EPN Straight socket for press mounting in pair on printed circuit. | FFV Straight plug for cable crimping with improved screen efficiency |
| ABF Adaptor from LEMO plug to BNC socket | EPS Elbow socket (90°) with two nuts for printed circuit | FLA Elbow plug (90°) with cable collet |
| ACA Adaptor from LEMO socket to C plug | EPY Elbow socket (90°) for printed circuit with two vertical sockets | FLR Elbow plug (90°) with resistor |
| ACB Adaptor from LEMO socket to C socket | ERA Fixed socket, nut fixing | FLS Elbow plug (90°) for cable crimping |
| AGG Adaptor from LEMO socket to General-Radio socket type 874 | ERC Fixed socket, nut fixing, with slots in flange | FLV Elbow plug (90°) for cable crimping with improved screen efficiency |
| AGH Adaptor from LEMO socket to UHF plug | ERE Fixed socket, nut fixing, with conical lead in | FPA Straight plug, non-latching, for printed circuit |
| ANA Adaptor from LEMO socket to N plug | ERM Fixed socket, nut fixing, with microswitch | FPL Elbow plug (90°) non-latching for printed circuit |
| ANB Adaptor from LEMO socket to N socket | ERN Fixed socket, nut fixing, with tags | FRT Straight plug with resistor or shorted |
| ANC Adaptor from LEMO socket to N fixed socket | ERT Straight socket without thread, force or adhesive fit | FTA T-plug with two sockets in line |
| APF Adaptor from LEMO plug to CINCH socket | EWF Fixed socket, nut fixing, with tags, vacuumtight, (back panel mounting) | FTL T-plug with two sockets (90°) |
| ASA Adaptor from LEMO socket to SMA plug | EWV Fixed socket, vacuumtight | FTR Elbow plug (90°) with one socket |
| ASB Adaptor from LEMO socket to SMA socket | FAA Straight plug, non-latching, nut fixing | FTY Straight plug with two parallel sockets |
| ASF Adaptor from LEMO plug to SMA socket | FAB Straight plug, non-latching, riveted fixing | HGP Fixed socket, nut fixing, watertight |
| ASG Adaptor from LEMO plug to SMA plug | FAC Straight plug with cable collet | HGW Fixed socket, nut fixing, with rear sealing ring |
| ECP Straight socket with two nuts | FAA Straight plug with cable collet PEEK outer shell | PCA Free socket with cable collet |
| EPA Straight socket for printed circuit | FAA Straight plug with cable collet and nut for fitting a strain relief | PCS Free socket with cable crimping |
| EPB Straight socket for printed circuit (long studs) | FFC Straight plug with flats on latch sleeve and cable collet | PES Fixed socket, nut fixing, with cable crimping (back panel mounting) |
| EPC Straight socket for printed circuit with clearance under the body | FFE Straight plug with front sealing ring, cable collet and nut for fitting a strain relief | PSA Fixed socket, nut fixing, with cable collet |
| EPE Straight socket with two nuts for printed circuit | | PSS Fixed socket, nut fixing, with cable crimping |
| | | RAD Fixed coupler, nut fixing |
| | | RMA Free coupler |
| | | SWH Fixed coupler, nut fixing, vacuumtight |

Part Section Showing Internal Components



Models with collet nut for fitting a strain relief

To order models with a collet nut for fitting a strain relief, add a "Z" in the "variant" position (see page 12) of the part number. Strain reliefs are available in nine colours and several sizes to accommodate different cable outside diameters. They are ordered separately as indicated in the "Accessories" section.

Watertight/Vacuumtight models

The fixed sockets and couplers, models HGP, HGW, EWF, EWV, SWH allow the device on which they are

fitted to reach a protection index of IP66 as per IEC 529 (unmated). They are fully compatible with the non watertight models of the same series and are widely used for portable radios, ship installations and in aircraft.

Specially prepared & tested versions of these models are available for vacuumtight applications guaranteeing a leakage level of less than 10^{-6} mbar.l.s⁻¹ (as per MIL-STD-1344A standard method 1008). A vacuumtight model is identified by the letter at the end of the part number (certificate on request).

To seal both the watertight and vacuumtight models, LEMO uses an epoxy resin.

Technical Characteristics

Mechanical and climatical

| Characteristics | Value | Standard | Method |
|-------------------------------------|----------------|---------------|--------|
| Contact retention force | > 18 N | MIL-STD-1344A | 2007.1 |
| Cable pull off force | > 100 N | MIL-STD-1344A | 2009.1 |
| Connector pull off force | > 90 N | | |
| Endurance | > 1000 cycles | MIL-STD-1344A | 2016 |
| Operating temperature ¹⁾ | - 55°C + 260°C | | |

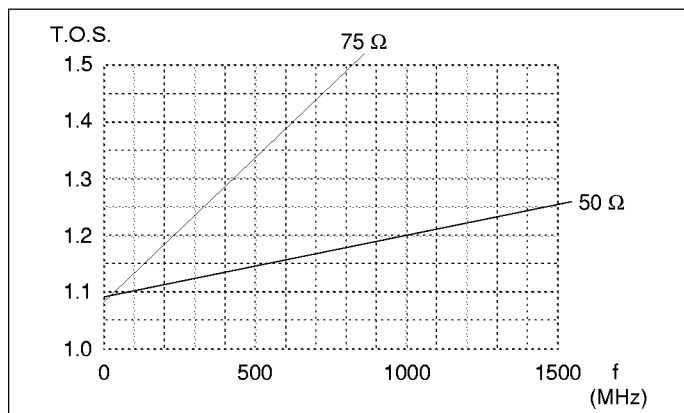
Note: 1) to seal both the watertight and vacuumtight models, LEMO uses and epoxy resin. The operating temperature is limited between -20°C and +80°C.

Electrical

| Characteristics | Value | Standard | Method |
|---------------------------|----------------------|--------------------------------|-------------|
| Impedance | 50 Ω | | |
| Operating voltage (50 Hz) | 0.7 kV rms | IEC 130-1 1 ^{ème} ed. | § 14.5 |
| Test voltage (50 Hz) | 2.1 kV rms | MIL-STD-1344A | 3001.1 |
| Rated current | 4 A | IEC 512-3 | |
| Contact resistance | < 6 mΩ | MIL-STD-202 F | 307 |
| Screen resistance | < 3.5 mΩ | MIL-STD-1344A | 3007 |
| Insulating resistance | > 10 ¹² Ω | MIL-STD-1344A | 3003.1 |
| VSWR (f in GHz) | 50 Ω | 1.09+0.11f | IEC 169-1-1 |
| | 75 Ω | 1.08+0.51f | IEC 169-1-1 |

Voltage Standing Wave Ratio

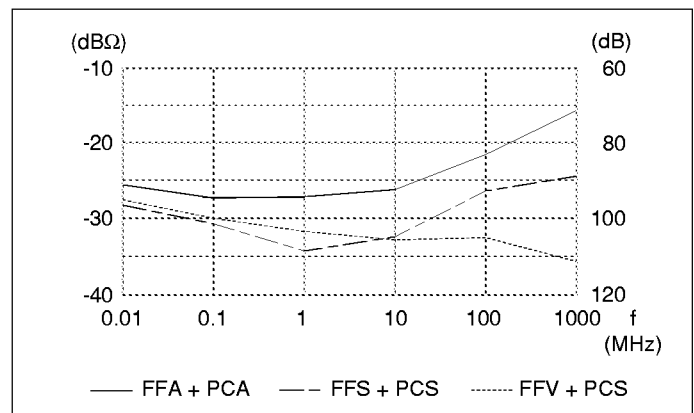
The VSWR (Voltage Standing Wave Ratio) is the value representing the power reflected in a connection. In most cases, the working frequency range is where $VSWR \leq 1.25$



Note: value for FFS plug and PCS socket mated (with PTFE insulator). Impedance measured under 50 Ω with a RG-174 A/U cable or under 75 Ω with a RG-179 B/U cable.

Screening efficiency (EMC properties) in dB (transfer impedance in dB_{Ohm})

The screening efficiency is the ratio between the electromagnetic field inside the connector and a power source at the outside of the connector (or vice versa).



Note: measured according to IEC-169-1-3 standard.

Recommended cables

| Cable group | Standard | | | Other cable | Imp. (Ω) |
|-------------|------------|----------|-------------|---------------------|----------|
| | MIL-C-17 | IEC 96-2 | CCTU 10-01A | | |
| 6 | RG.58 C/U | 50.3.1 | KX 15 | Belden 8262 | 50 ± 2 Ω |
| 7 | RG.142 B/U | | | | 50 ± 2 Ω |
| 3 | RG.174 A/U | 50.2.1 | KX 3A | Belden 8216 | 50 ± 2 Ω |
| | | | | Lemo CCH.99.281.505 | 50 ± 2 Ω |
| 1 | RG.178 B/U | 50.1.1 | KX 21A | Belden 83265 | 50 ± 2 Ω |
| 2 | RG.179 B/U | 75.2.1 | | | 75 ± 3 Ω |
| 5 | RG.180 B/U | | | | 95 ± 5 Ω |
| 2 | RG.187 A/U | 75.2.2 | | | 75 ± 3 Ω |
| 4 | RG.188 A/U | 50.2.3 | | Belden 83269 | 50 ± 2 Ω |
| 1 | RG.196 A/U | 50.1.2 | | | 50 ± 2 Ω |
| 4 | RG.316 /U | 50.2.2 | KX 22A | Belden 83284 | 50 ± 2 Ω |
| 3 | | | | Dätwyler HF-2114 | 50 ± 2 Ω |
| 3 | | | | Storm 421 099 | 50 ± 2 Ω |
| 3 | | | | H+S G02232D-60 | 50 ± 2 Ω |

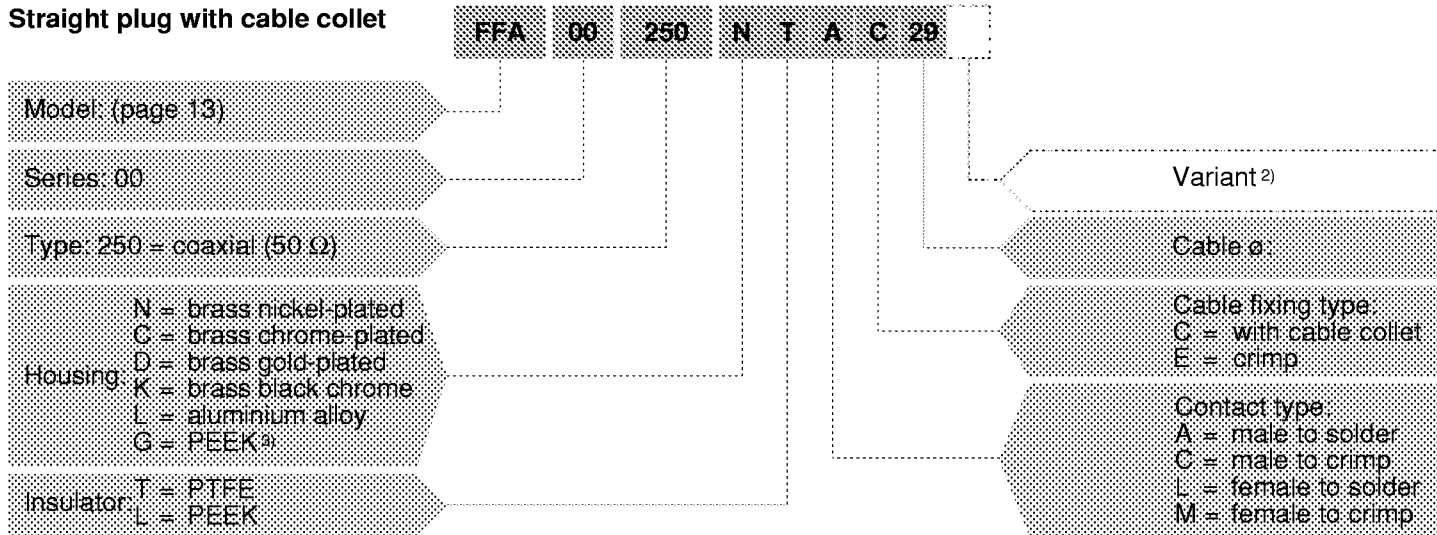
Colour of connectors in anodized aluminium alloy

When ordering a connector with an aluminium alloy, the outer shell colour must be chosen from the table variant listed below and included in the position of the part number.

| Reference | Colour |
|-----------|---------|
| A | blue |
| J | yellow |
| N | black |
| R | red |
| T | natural |
| V | green |

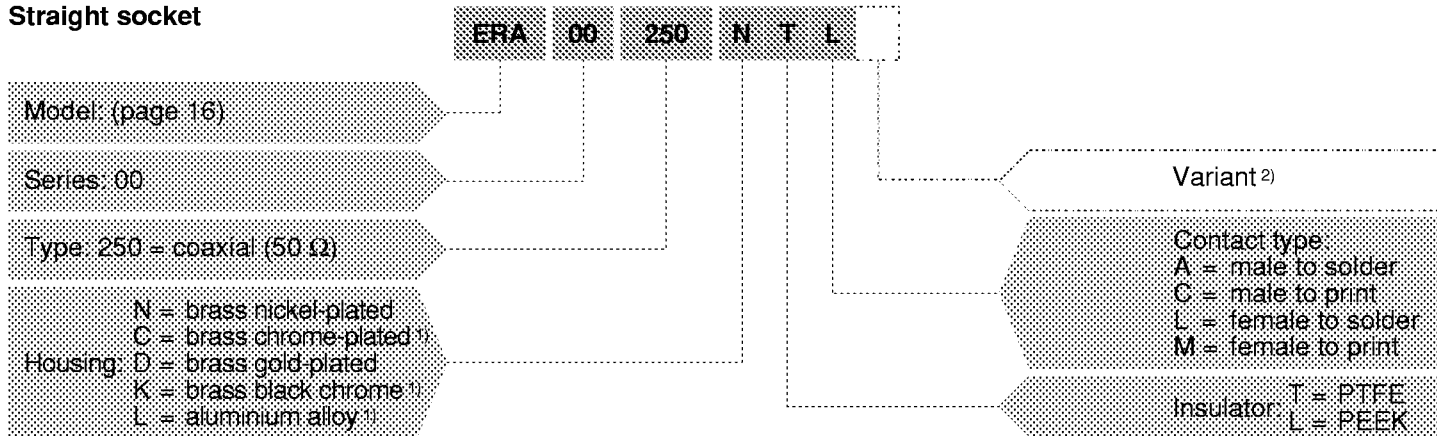
Part Number Example

Straight plug with cable collet



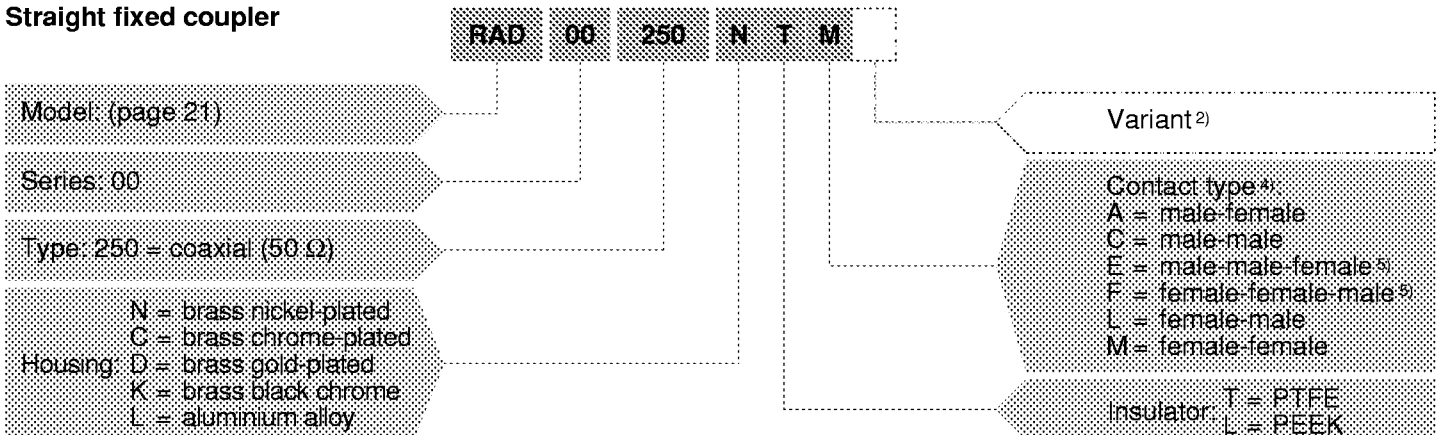
FFA.00.250.NTAC29 = straight plug with cable collet, series 00, coaxial type (50 Ω), outer shell in nickel-plated brass, PTFE insulator, male solder contact, C type collet of 2.9 mm diameter.

Straight socket



ERA.00.250.NTL = fixed socket, nut fixing, series 00, coaxial type (50 Ω), outer shell in nickel-plated brass, PTFE insulator, female solder contact.

Straight fixed coupler



RAD.00.250.NTM = straight fixed coupler, nut fixing, series 00, coaxial type (50 Ω), outer shell in nickel-plated brass, PTFE insulator, female-female contact.

Note: 1) treatment not available for the printed circuit models

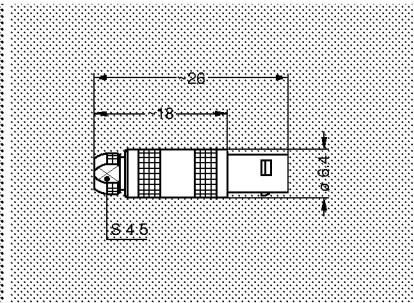
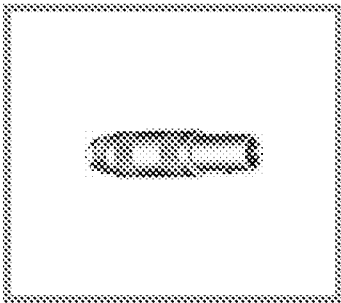
2) the "variant" position in the reference is used to specify the anodized colour of the housing in aluminium alloy (page 11) or models with a collet nut for fitting a strain relief "Z". The strain relief can be ordered separately as indicated in the "Accessories" section.

3) available for the FFA model only

4) concerning the straight fixed couplers with nut fixing RAD and SWH, the first contact type mentioned is always the contact at the flange end.

5) used only for models: FTA, FTL and FTY.

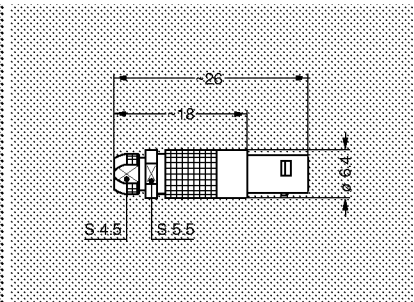
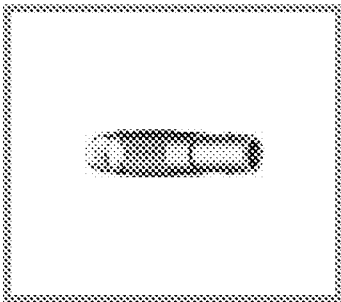
Models



FFA Straight plug with cable collet

| Part number | Cable group | Note |
|-------------------|-------------|------|
| FFA.00.250.NTAC22 | 1 | ● |
| FFA.00.250.NTAC29 | 2-3-4 | ● |
| FFA.00.250.NTAC31 | 8 | ● |

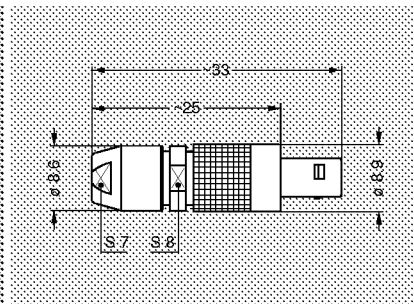
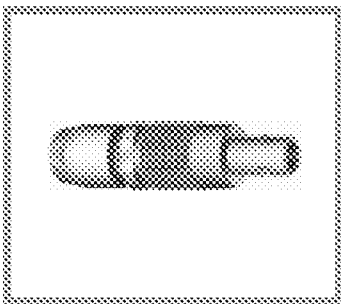
M1 Cable assembly



FFC Straight plug with flats on latch sleeve and cable collet

| Part number | Cable group | Note |
|-------------------|-------------|------|
| FFC.00.250.NTAC22 | 1 | ● |
| FFC.00.250.NTAC27 | 2-4 | ● |
| FFC.00.250.NTAC31 | 3-8 | ● |

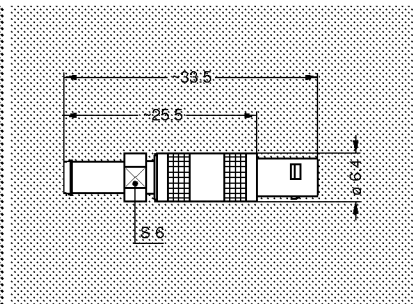
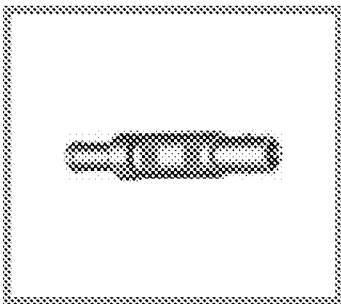
M3 Cable assembly



FFY Straight plug with cable collet

| Part number | Cable group | Note |
|-------------------|-------------|------|
| FFY.00.250.NTAC52 | 6-7 | ● |

M2 Cable assembly

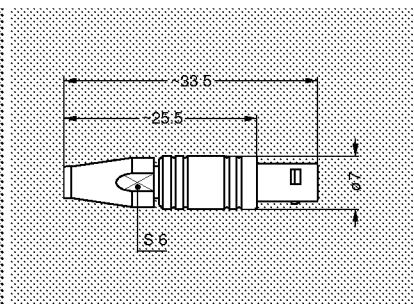
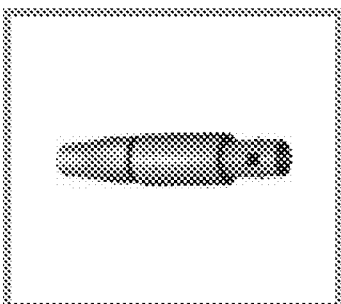


FFA Straight plug with cable collet and nut for fitting a strain relief

| Part number | Cable group | Note |
|--------------------|-------------|------|
| FFA.00.250.NTAC22Z | 1 | ● |
| FFA.00.250.NTAC29Z | 2-3-4 | ● |
| FFA.00.250.NTAC31Z | 8 | ● |

Note: the strain relief must be ordered separately (see page 29).

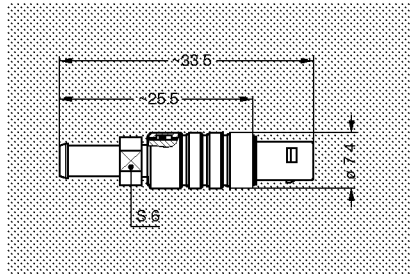
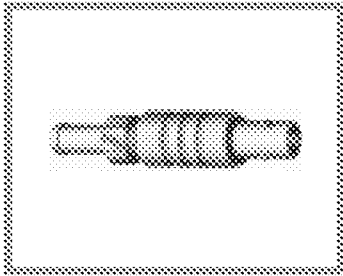
M1 Cable assembly



FFA Straight plug with cable collet, PEEK outer shell

| Part number | Cable group | Note |
|-------------------|-------------|------|
| FFA.00.250.GTAC22 | 1 | ● |
| FFA.00.250.GTAC29 | 2-3-4 | ● |
| FFA.00.250.GTAC31 | 8 | ● |

M1 Cable assembly ● Available ○ On request

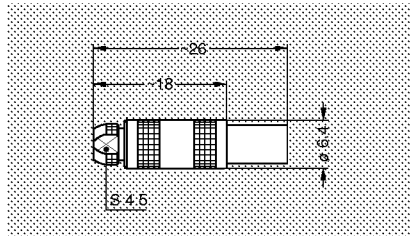
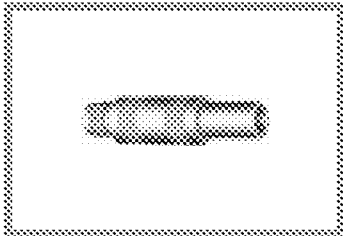


FFE Straight plug with front sealing ring, cable collet and nut for fitting a strain relief

| Part number | Cable group | Note |
|--------------------|-------------|------|
| FFE.00.250.NTAC22Z | 1 | ○ |
| FFE.00.250.NTAC29Z | 2-3-4 | ○ |
| FFE.00.250.NTAC31Z | 8 | ○ |

Note: the strain relief must be ordered separately (see page 29).

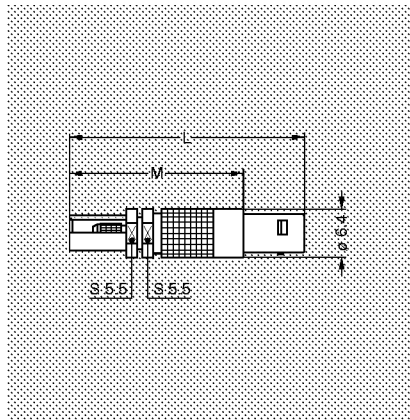
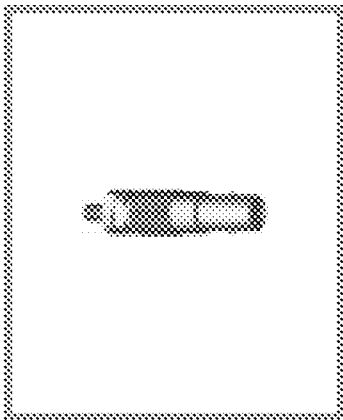
M1 Cable assembly



FFF Straight plug, non-latching, with cable collet

| Part number | Cable group | Note |
|-------------------|-------------|------|
| FFF.00.250.NTAC22 | 1 | ● |
| FFF.00.250.NTAC29 | 2-3-4 | ● |
| FFF.00.250.NTAC31 | 8 | ● |

M1 Cable assembly



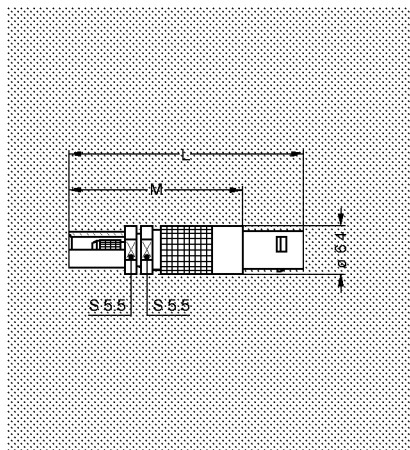
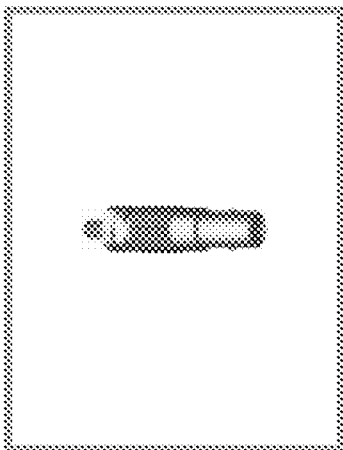
FFS Straight plug with cable crimping

| Part number | Cable group | Dim. | | Note |
|-------------------|-------------|------|----|------|
| | | L | M | |
| FFS.00.250.NTCE24 | 1 | 31 | 23 | ● |
| FFS.00.250.NTCE30 | 2 | 31 | 23 | ● |
| FFS.00.250.NTCE31 | 3-4 | 31 | 23 | ● |
| FFS.00.250.NTCE35 | 8 | 31 | 23 | ○ |
| FFS.00.250.NTCE44 | 5 | 31 | 23 | ● |
| FFS.00.250.NTCE52 | 6 | 34 | 26 | ● |
| FFS.00.250.NTCE56 | 7 | 31 | 23 | ○ |

Note: the strain relief must be ordered separately (see page 29).

M4 Cable assembly, crimp contact

M5 Cable assembly, solder contact (on request)



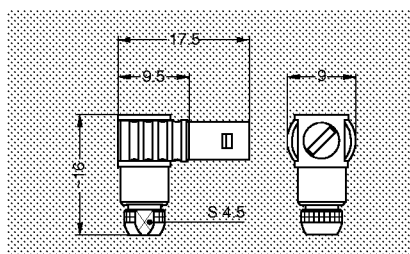
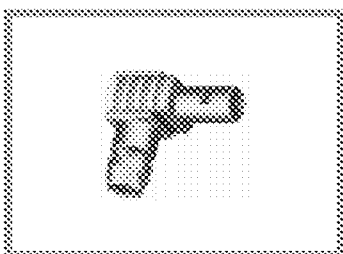
FFV Straight plug for cable crimping with improved screen efficiency

| Part number | Cable group | Dim. | | Note |
|-------------------|-------------|------|----|------|
| | | L | M | |
| FFV.00.250.NTCE24 | 1 | 31 | 23 | ○ |
| FFV.00.250.NTCE30 | 2 | 31 | 23 | ○ |
| FFV.00.250.NTCE31 | 3-4 | 31 | 23 | ○ |
| FFV.00.250.NTCE35 | 8 | 31 | 23 | ● |
| FFV.00.250.NTCE44 | 5 | 31 | 23 | ○ |
| FFV.00.250.NTCE52 | 6 | 34 | 26 | ○ |
| FFV.00.250.NTCE56 | 7 | 31 | 23 | ● |

Note: the strain relief must be ordered separately (see page 29).

M4 Cable assembly, crimp contact

M5 Cable assembly, solder contact (on request)

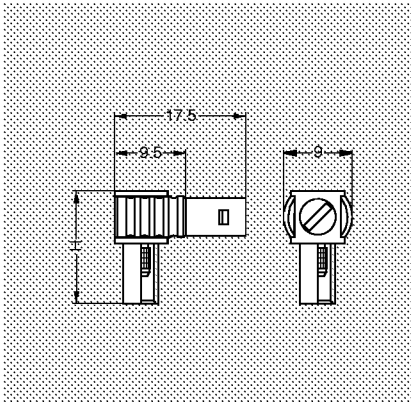
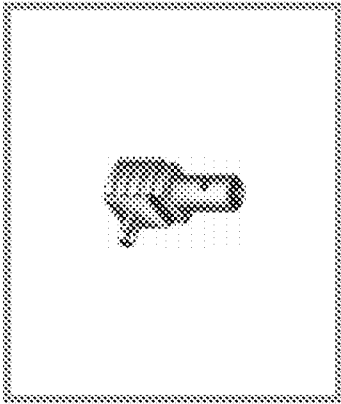


FLA Elbow plug (90°) with cable collet

| Part number | Cable group | Note |
|-------------------|-------------|------|
| FLA.00.250.NTAC22 | 1 | ● |
| FLA.00.250.NTAC27 | 2-4 | ● |
| FLA.00.250.NTAC31 | 3-8 | ● |

M6 Cable assembly

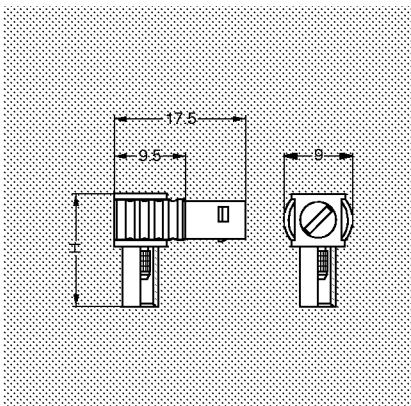
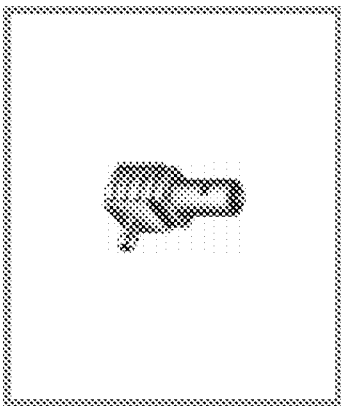
● Available ○ On request



FLS Elbow plug (90°) cable crimping

| Part number | Cable group | H (mm) | Note |
|-------------------|-------------|--------|------|
| FLS.00.250.NTAE24 | 1 | 15 | ○ |
| FLS.00.250.NTAE31 | 3-4 | 15 | ● |
| FLS.00.250.NTAE35 | 8 | 15 | ● |
| FLS.00.250.NTAE52 | 6 | 18 | ● |
| FLS.00.250.NTAE56 | 7 | 15 | ○ |

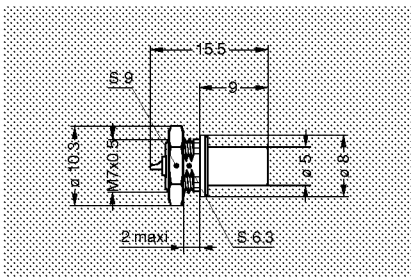
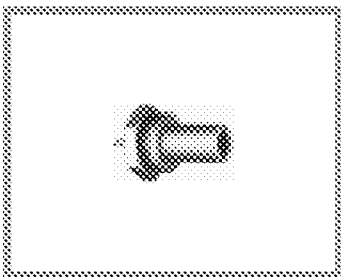
M7 Cable assembly



FLV Elbow plug (90°) cable crimping with improved screen efficiency

| Part number | Cable group | H (mm) | Note |
|-------------------|-------------|--------|------|
| FLV.00.250.NTAE24 | 1 | 15 | ○ |
| FLV.00.250.NTAE30 | 2 | 15 | ○ |
| FLV.00.250.NTAE31 | 3-4 | 15 | ○ |
| FLV.00.250.NTAE35 | 8 | 15 | ● |
| FLV.00.250.NTAE52 | 6 | 18 | ○ |
| FLV.00.250.NTAE56 | 7 | 15 | ● |

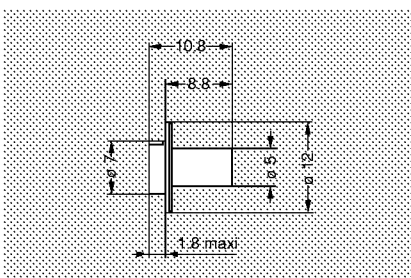
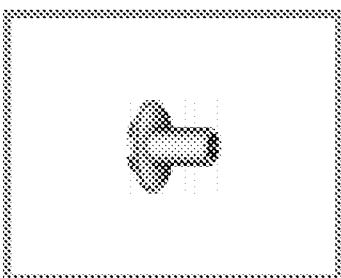
M7 Cable assembly



FAA Straight plug, non-latching, nut fixing

| Part number | Weight (g) | Note |
|----------------|------------|------|
| FAA.00.250.NTA | 2.5 | ● |

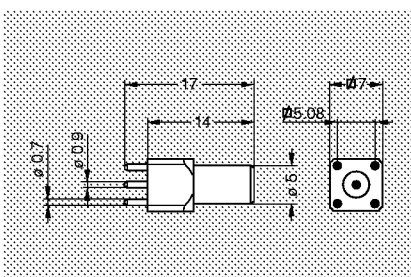
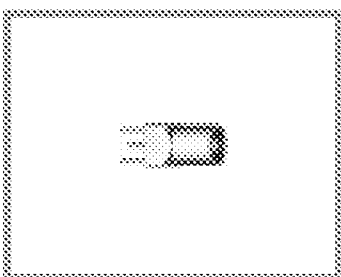
P5 Panel cut-out



FAB Straight plug, non-latching, riveted fixing

| Part number | Weight (g) | Note |
|----------------|------------|------|
| FAB.00.250.NTA | 2.5 | ○ |

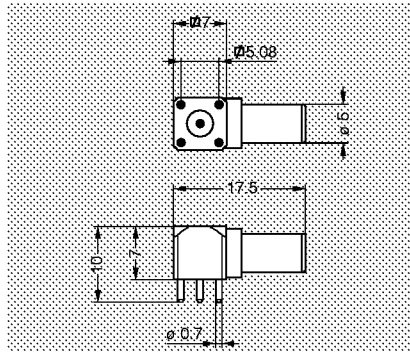
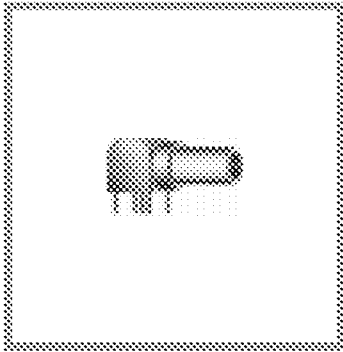
P1 Panel cut-out



FPA Straight plug, non-latching, for printed circuit

| Part number | Weight (g) | Note |
|----------------|------------|------|
| FPA.00.250.NTD | 2.5 | ● |

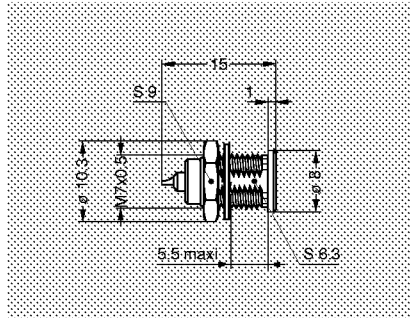
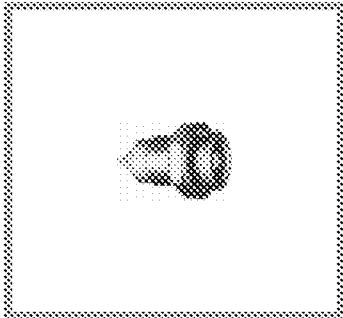
P11 PCB drilling pattern ● Available ○ On request



FPL Elbow plug (90°), non-latching for printed circuit

| Part number | Weight (g) | Note |
|----------------|------------|------|
| FPL.00.250.NTD | 2.5 | ● |

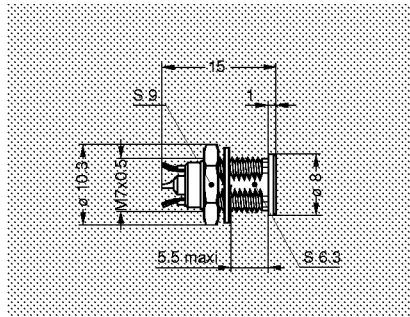
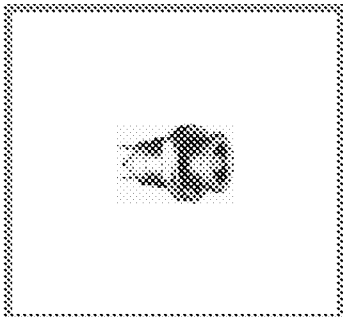
P10 PCB drilling pattern



ERA Fixed socket, nut fixing

| Part number | Weight (g) | Note |
|----------------|------------|------|
| ERA.00.250.NTL | 2.8 | ● |

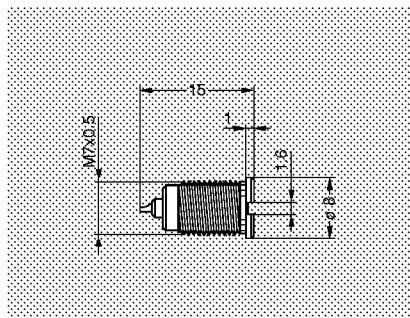
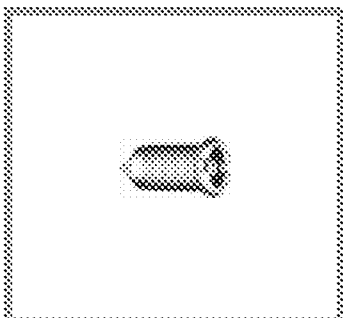
P5 Panel cut-out



ERN Fixed socket, nut fixing, with earthing tags

| Part number | Weight (g) | Note |
|----------------|------------|------|
| ERN.00.250.NTL | 2.8 | ● |

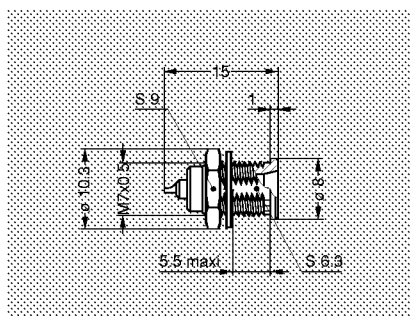
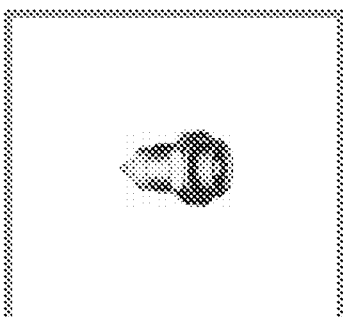
P5 Panel cut-out



ERC Fixed socket, nut fixing, with slots in flange

| Part number | Weight (g) | Note |
|----------------|------------|------|
| ERC.00.250.NTL | 2.2 | ● |

P3 Panel cut-out

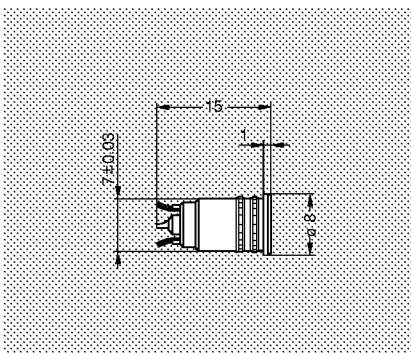
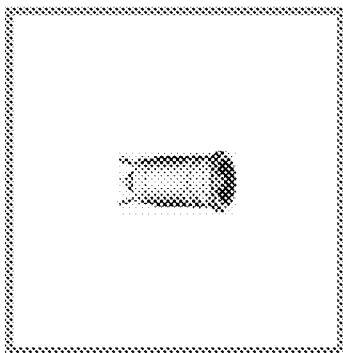


ERE Fixed socket, nut fixing, with conical lead-in

| Part number | Weight (g) | Note |
|----------------|------------|------|
| ERE.00.250.NTL | 2.8 | ● |

P5 Panel cut-out

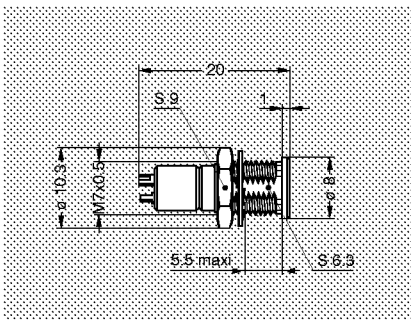
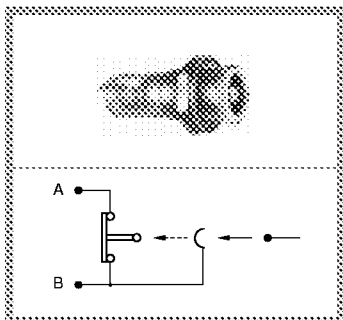
● Available ○ On request



ERT Straight socket without thread, force or adhesive fit

| Part number | Weight (g) | Note |
|----------------|------------|------|
| ERT.00.250.NTL | 2.2 | ● |

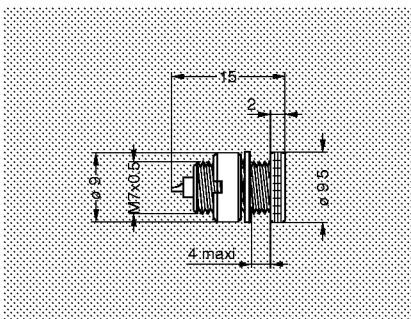
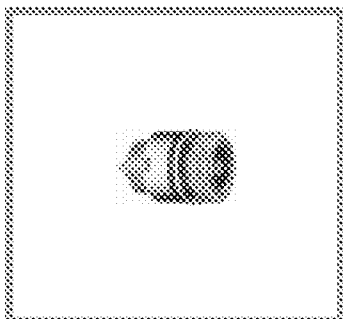
P4 Panel cut-out



ERM Fixed socket, nut fixing, with microswitch

| Part number | Weight (g) | Note |
|----------------|------------|------|
| ERM.00.250.NTL | 3.0 | ● |

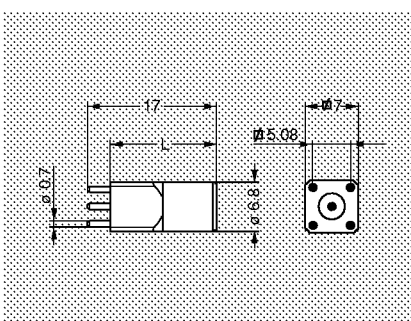
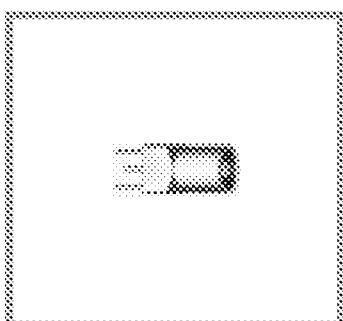
P5 Panel cut-out



ECP Fixed socket with two nuts

| Part number | Weight (g) | Note |
|----------------|------------|------|
| ECP.00.250.NTL | 3.3 | ● |

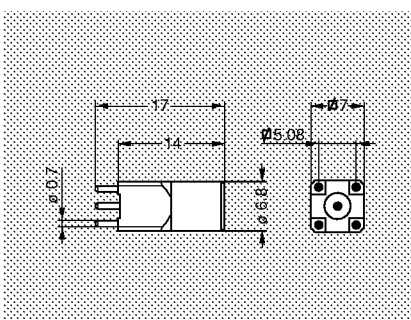
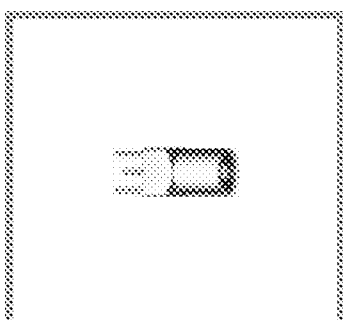
P1 Panel cut-out



EPA-EPB Straight socket for printed circuit

| Part number | L (mm) | Weight (g) | Note |
|----------------|--------|------------|------|
| EPA.00.250.NTN | 14 | 3.4 | ● |
| EPB.00.250.NTN | 12 | 3.3 | ● |

P10 PCB drilling pattern

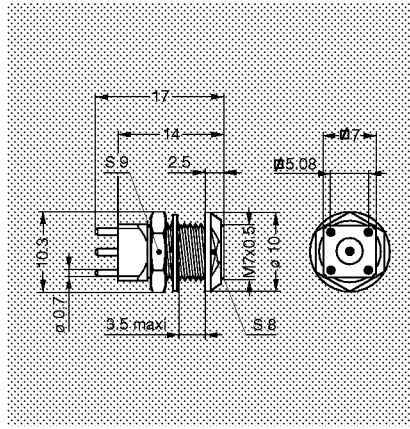
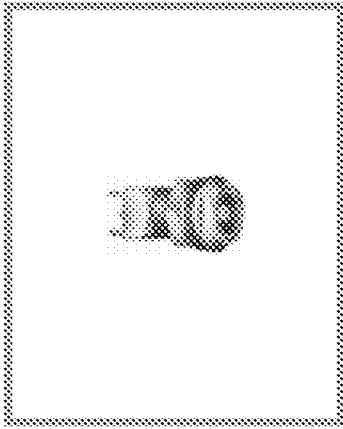


EPC Straight socket for printed circuit with clearance under the body

| Part number | Weight (g) | Note |
|----------------|------------|------|
| EPC.00.250.NTN | 3.3 | ● |

P10 PCB drilling pattern

● Available ○ On request

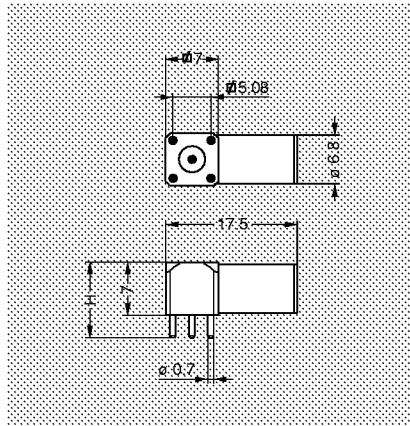
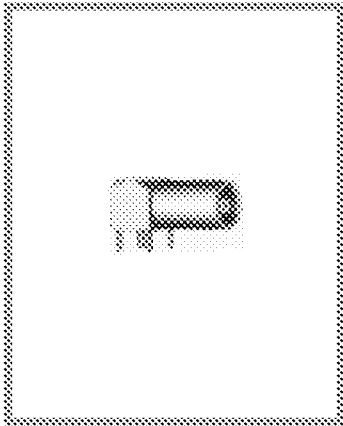


EPE Fixed socket with two nuts, for printed circuit

| Part number | Weight (g) | Note |
|----------------|------------|------|
| EPE.00.250.NTN | 4.2 | ● |

P1 Panel cut-out

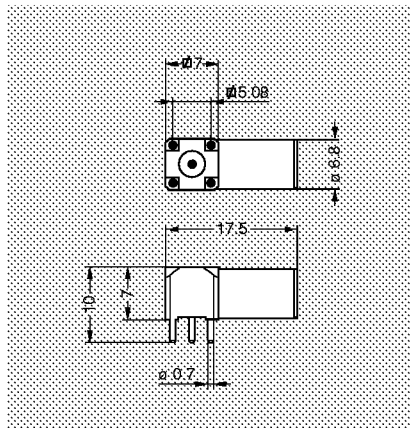
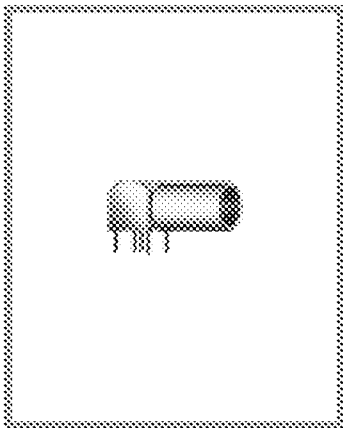
P12 PCB drilling pattern



EPL/EPM Elbow socket (90°) for printed circuit

| Part number | H (mm) | Weight (g) | Note |
|----------------|--------|------------|------|
| EPL.00.250.NTN | 10 | 4.3 | ● |
| EPM.00.250.NTN | 13 | 4.5 | ● |

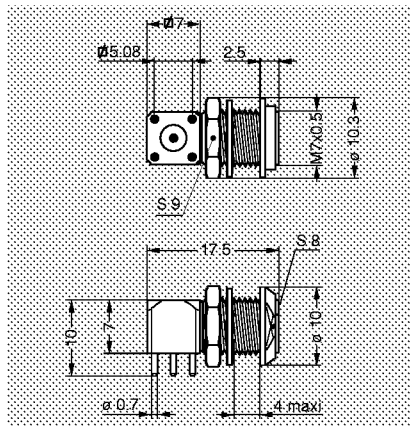
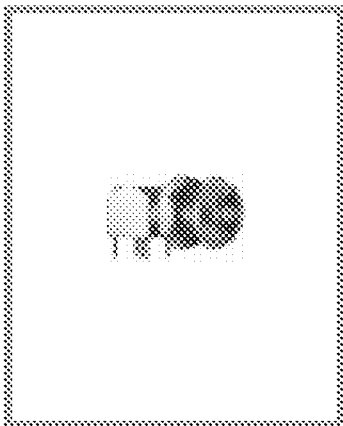
P10 PCB drilling pattern



EPK Elbow socket (90°) for printed circuit with clearance under the body

| Part number | Weight (g) | Note |
|----------------|------------|------|
| EPK.00.250.NTN | 4.2 | ● |

P10 PCB drilling pattern



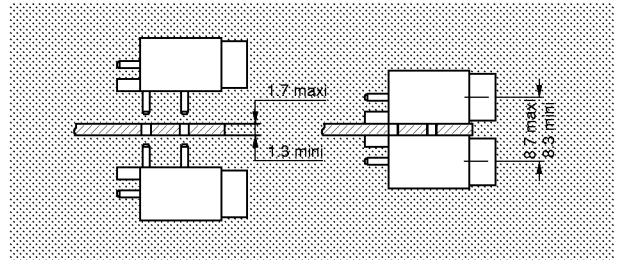
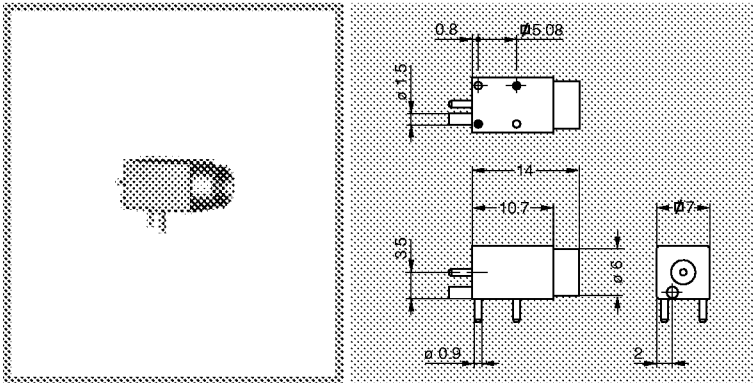
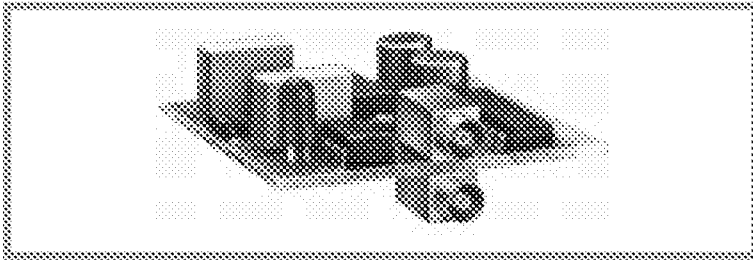
EPS Elbow socket (90°) with two nuts, for printed circuit

| Part number | Weight (g) | Note |
|----------------|------------|------|
| EPS.00.250.NTN | 5.3 | ● |

P1 Panel cut-out

P12 PCB drilling pattern

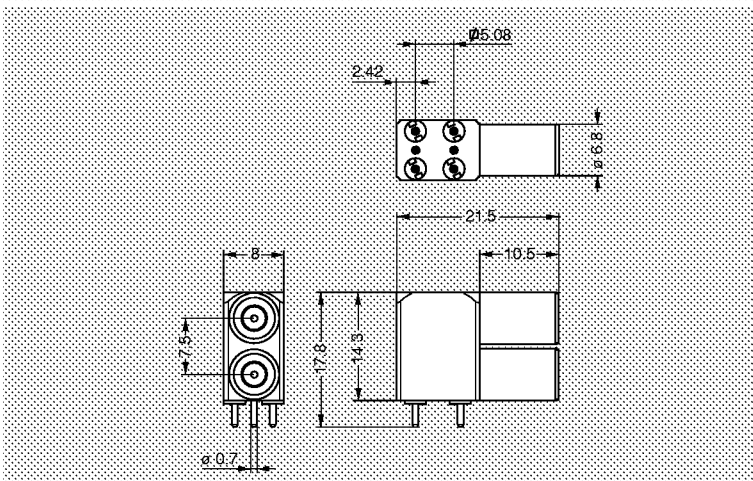
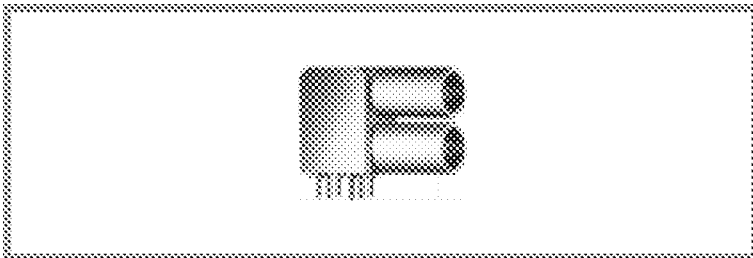
● Available ○ On request



EPN Straight socket for press mounting in pair on printed circuit

| Part number | Weight (g) | Note |
|----------------|------------|------|
| EPN.00.250.NTN | 3.6 | ● |

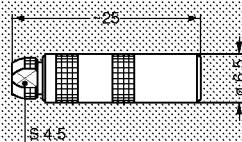
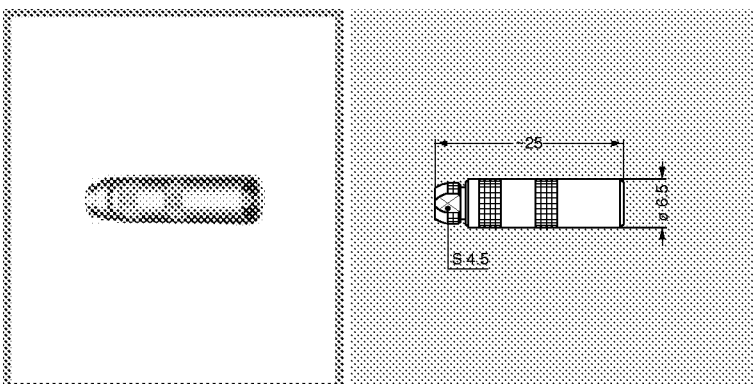
P9 PCB drilling pattern



EPY Elbow socket (90°) for printed circuit, with two vertical sockets

| Part number | Weight (g) | Note |
|----------------|------------|------|
| EPY.00.250.NTN | 12.8 | ● |

P13 PCB drilling pattern

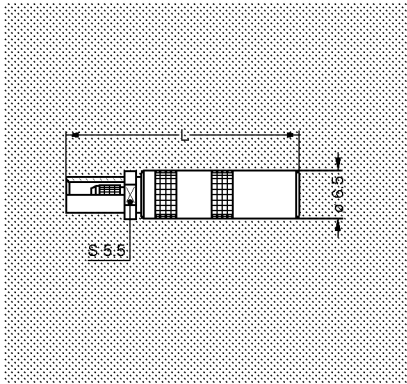
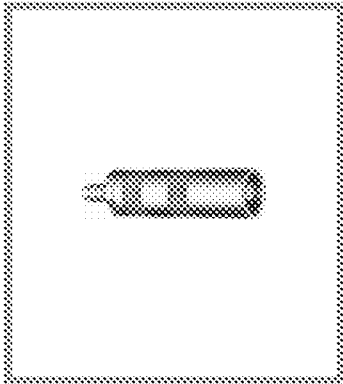


PCA Free socket with cable collet

| Part number | Cable group | Note |
|-------------------|-------------|------|
| PCA.00.250.NTLG22 | 1 | ● |
| PCA.00.250.NTLC29 | 2-3-4 | ● |
| PCA.00.250.NTLC31 | 8 | ● |

M1 Cable assembly

● Available ○ On request



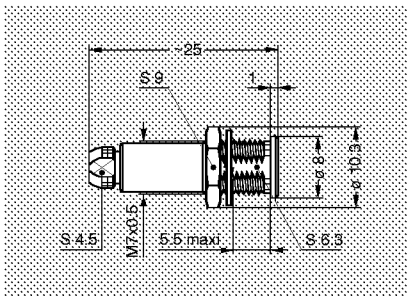
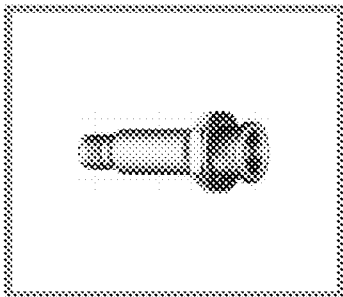
PCS Free socket with cable crimping

| Part number | Cable group | Dim. | Note |
|-------------------|-------------|------|------|
| | | L | |
| PCS.00.250.NTME24 | 1 | 30 | ● |
| PCS.00.250.NTME30 | 2 | 30 | ● |
| PCS.00.250.NTME31 | 3-4 | 30 | ● |
| PCS.00.250.NTME35 | 8 | 30 | ○ |
| PCS.00.250.NTME44 | 5 | 30 | ● |
| PCS.00.250.NTME52 | 6 | 33 | ● |

Note: the strain relief must be ordered separately (see page 29).

M4 Cable assembly, crimp contact

M5 Cable assembly, solder contact (on request)

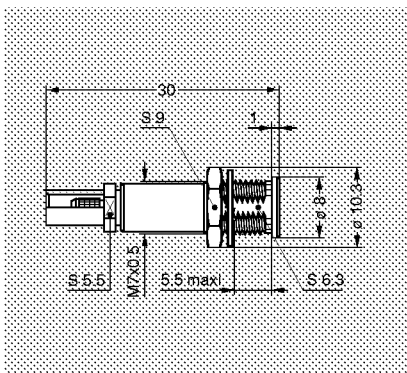
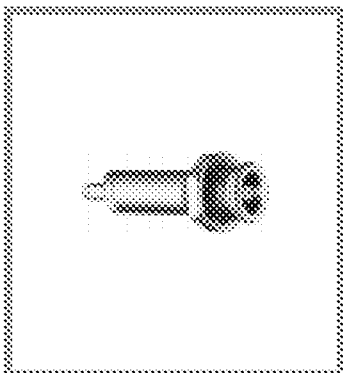


PSA Fixed socket, nut fixing, with cable collet

| Part number | Cable group | Note |
|-------------------|-------------|------|
| PSA.00.250.NTLC22 | 1 | ● |
| PSA.00.250.NTLC29 | 2-3-4 | ● |
| PSA.00.250.NTLC31 | 8 | ● |

M1 Cable assembly

P5 Panel cut-out



PSS Fixed socket, nut fixing, with cable crimping

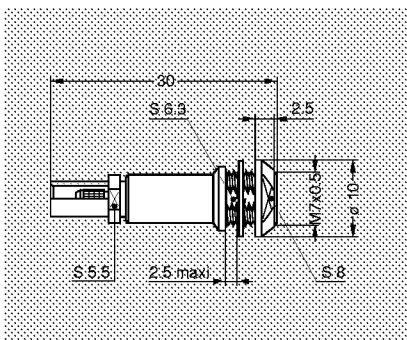
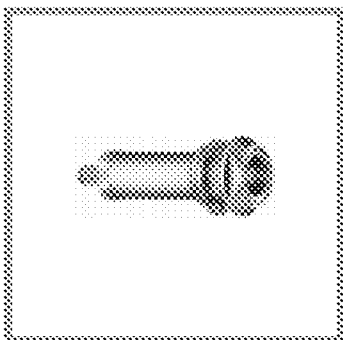
| Part number | Cable group | Note |
|-------------------|-------------|------|
| PSS.00.250.NTME24 | 1 | ● |
| PSS.00.250.NTME30 | 2 | ● |
| PSS.00.250.NTME31 | 3-4 | ● |
| PSS.00.250.NTME35 | 8 | ○ |

Note: the strain relief must be ordered separately (see page 29).

M4 Cable assembly, crimp contact

M5 Cable assembly, solder contact (on request)

P5 Panel cut-out



PES Fixed socket, nut fixing, with cable crimping (back panel mounting)

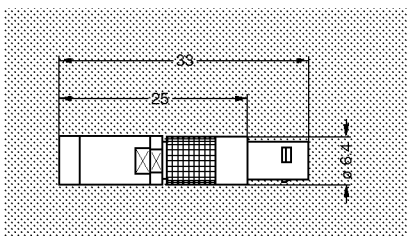
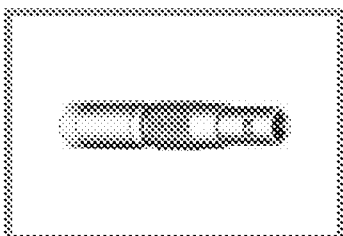
| Part number | Cable group | Note |
|-------------------|-------------|------|
| PES.00.250.NTME31 | 3-4 | ● |
| PES.00.250.NTME35 | 8 | ● |

Note: the strain relief must be ordered separately (see page 29).

M4 Cable assembly, crimp contact

M5 Cable assembly, solder contact (on request)

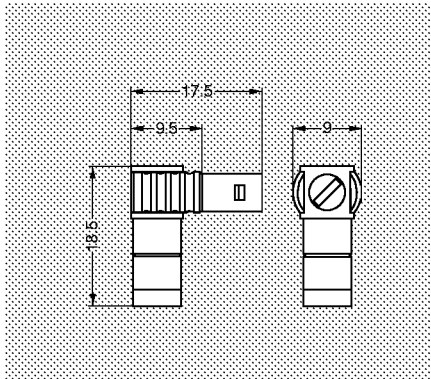
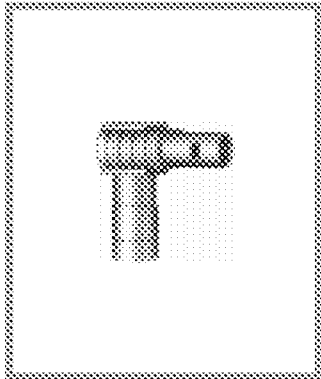
P5 Panel cut-out



FRT Straight plug with resistor or shorted

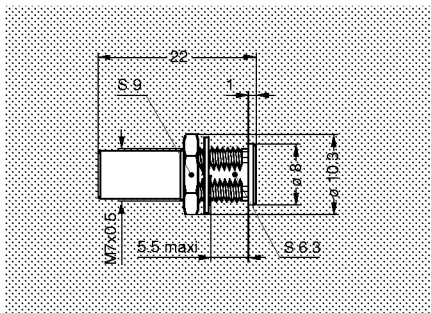
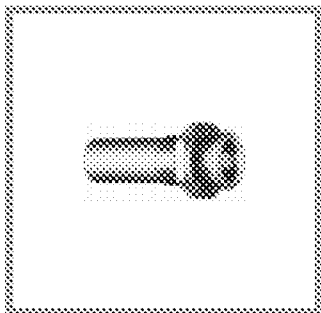
| Part number | Resistor | Weight (g) | Note |
|------------------|-----------|------------|------|
| FRT.00.250.NTA00 | shorted | 4.4 | ○ |
| FRT.00.250.NTA50 | 50 Ω 1/8W | 4.4 | ● |

● Available ○ On request



FLR Elbow plug (90°) with resistor

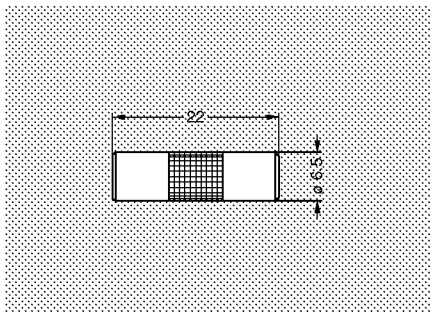
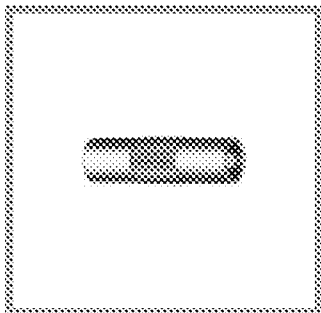
| Part number | Resistor | Weight (g) | Note |
|------------------|-----------|------------|------|
| FLR.00.250.NTA50 | 50 Ω 1/8W | 5.6 | ● |



RAD Fixed coupler, nut fixing

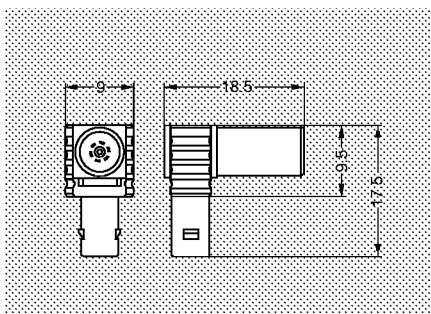
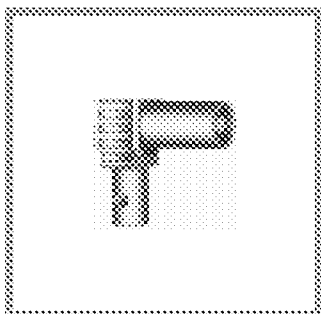
| Part number | Weight (g) | Note |
|----------------|------------|------|
| RAD.00.250.NTM | 3.8 | ● |

P5 Panel cut-out



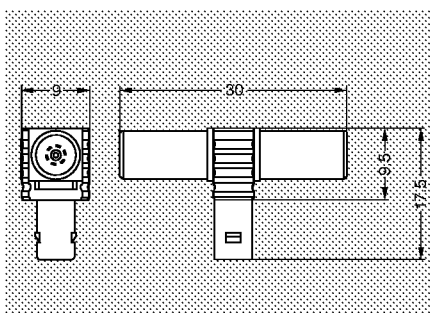
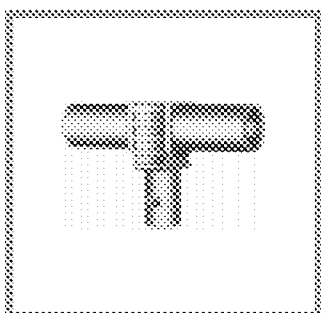
RMA Free coupler

| Part number | Weight (g) | Note |
|----------------|------------|------|
| RMA.00.250.NTM | 2.7 | ● |



FTR Elbow plug (90°) with socket

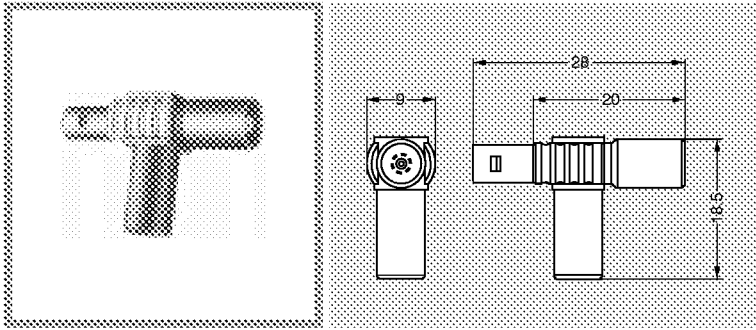
| Part number | Weight (g) | Note |
|----------------|------------|------|
| FTR.00.250.NTA | 5.4 | ● |



FTA T-plug with two sockets in line

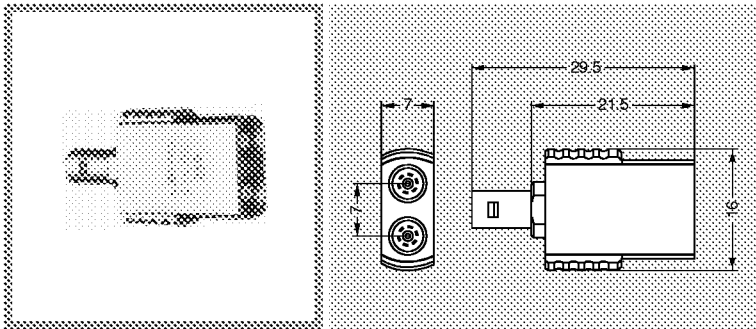
| Part number | Weight (g) | Note |
|----------------|------------|------|
| FTA.00.250.NTF | 7.8 | ● |

● Available ○ On request



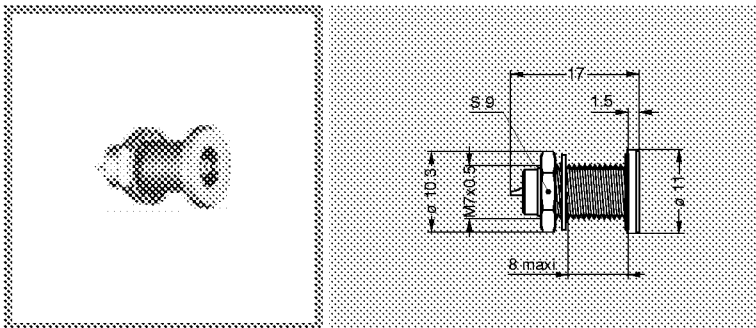
FTL T-plug with two sockets (90°)

| Part number | Weight (g) | Note |
|----------------|------------|------|
| FTL.00.250.NTF | 7.1 | ● |



FTY Straight plug with two parallel sockets

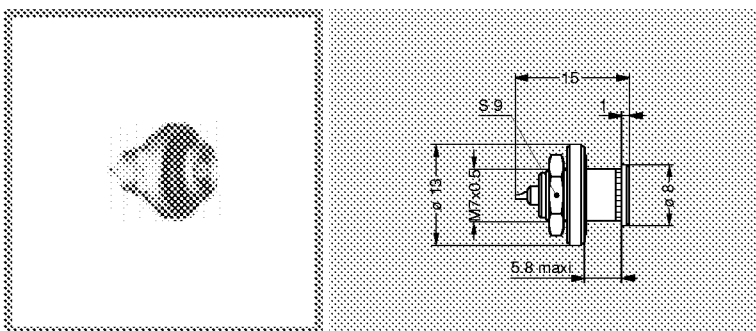
| Part number | Weight (g) | Note |
|----------------|------------|------|
| FTY.00.250.NTF | 12.5 | ● |



HGP Fixed socket, nut fixing, watertight

| Part number | Weight (g) | Note |
|-----------------|------------|------|
| HGP.00.250.NTLP | 4.2 | ● |

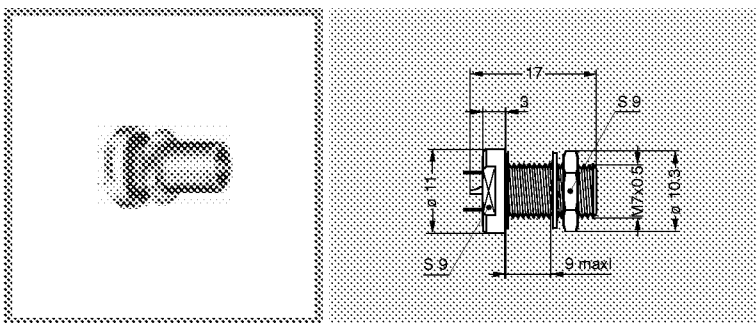
P1 Panel cut-out



HGW Fixed socket, nut fixing, with rear sealing ring

| Part number | Weight (g) | Note |
|-----------------|------------|------|
| HGW.00.250.NTLP | 4.2 | ● |

P1 Panel cut-out

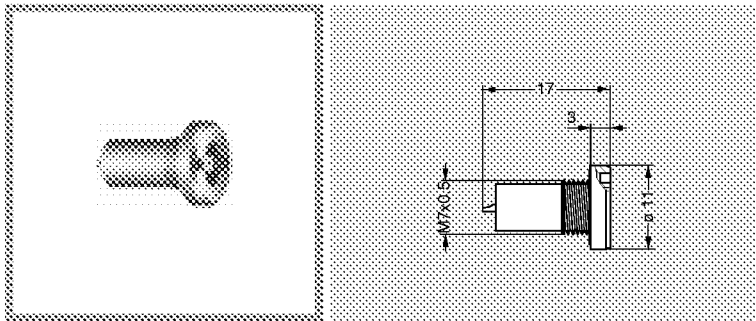


EWF Fixed socket, nut fixing, vacuumtight (back panel mounting)

| Part number | Weight (g) | Note |
|------------------|------------|------|
| EWF.00.250.NTLPV | 4.2 | ● |

P1 Panel cut-out

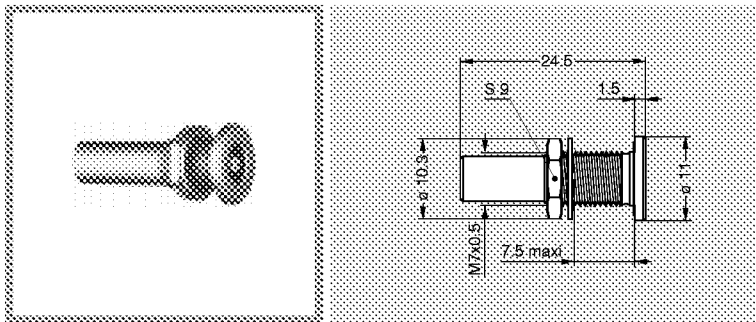
● Available ○ On request



EWV Fixed socket, vacuumtight

| Part number | Weight (g) | Note |
|------------------|------------|------|
| EWV.00.250.NTLPV | 3.7 | ● |

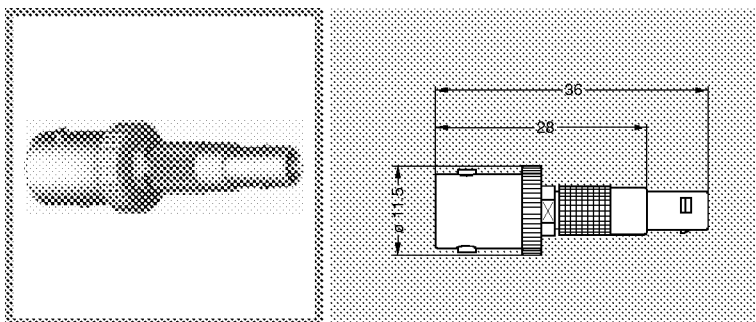
P2 Panel cut-out



SWH Fixed coupler, nut fixing, vacuumtight

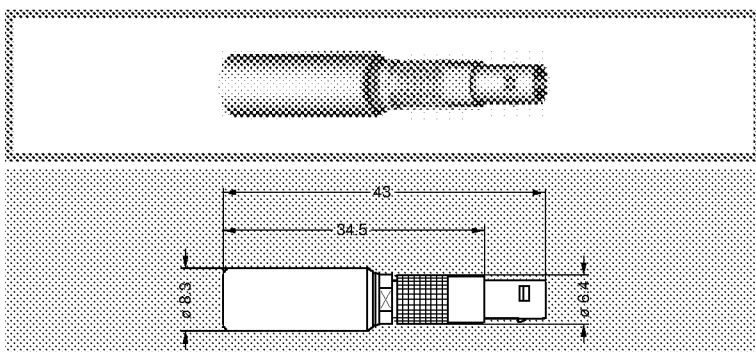
| Part number | Weight (g) | Note |
|-----------------|------------|------|
| SWH.00.250.NTMV | 5.2 | ● |

P1 Panel cut-out



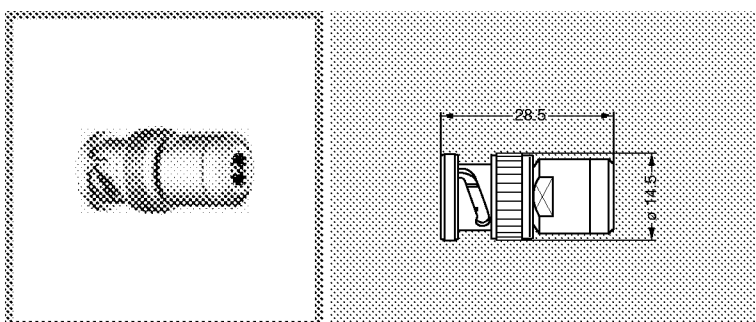
ABF Adaptor from LEMO plug to BNC socket

| Part number | Weight (g) | Note |
|----------------|------------|------|
| ABF.00.250.NTA | 8.3 | ● |



APF Adaptor from LEMO plug to CINCH socket

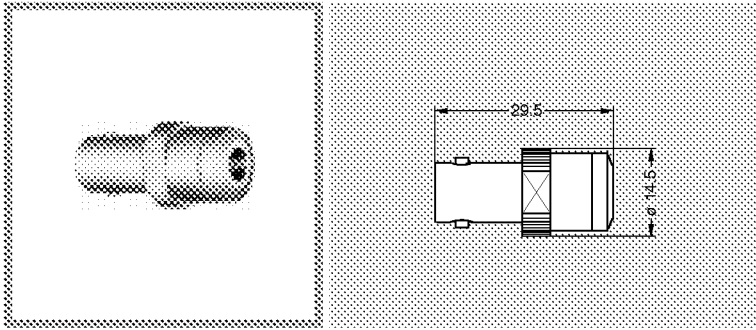
| Part number | Colour of the ring | Weight (g) | Note |
|-----------------|--------------------|------------|------|
| APF.00.250.DTAB | white | 7 | ● |
| APF.00.250.DTAR | red | 7 | ● |



ABA Adaptor from LEMO socket to BNC plug

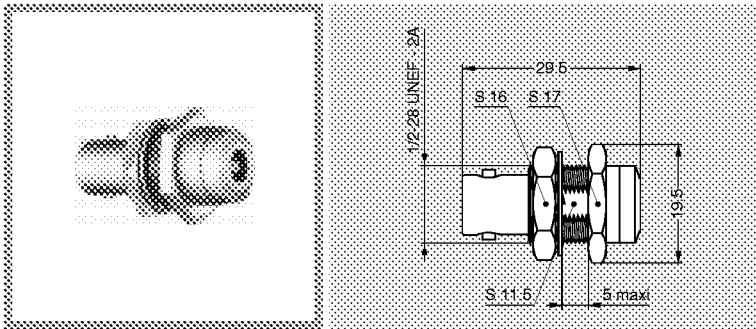
| Part number | Weight (g) | Note |
|----------------|------------|------|
| ABA.00.250.NTL | 18.7 | ● |

● Available ○ On request



ABC Adaptor from LEMO socket to BNC socket

| Part number | Weight (g) | Note |
|----------------|------------|------|
| ABC.00.250.NTM | 17 | ● |



ABD Adaptor from LEMO socket to BNC fixed socket

| Part number | Weight (g) | Note |
|----------------|------------|------|
| ABD.00.250.NTM | 21.4 | ● |

P7 Panel cut-out

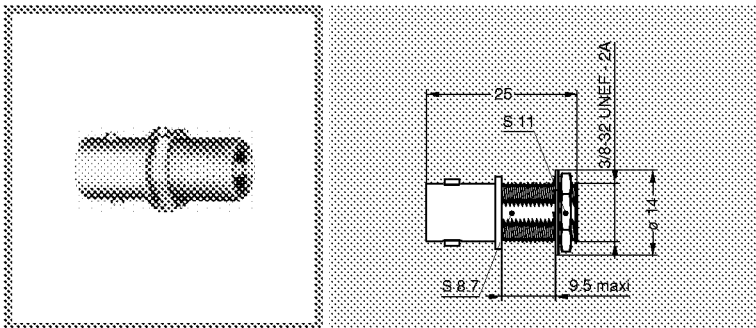
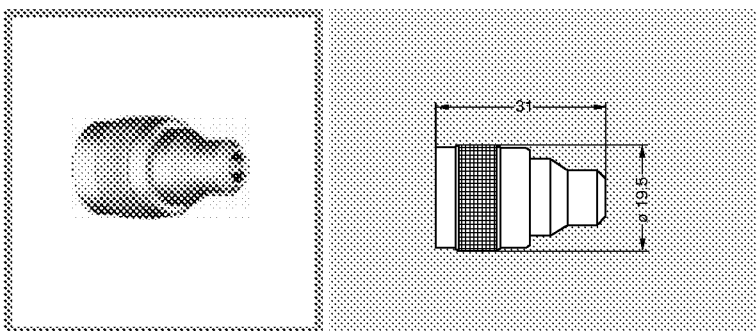


ABB Adaptor from LEMO fixed socket to BNC socket

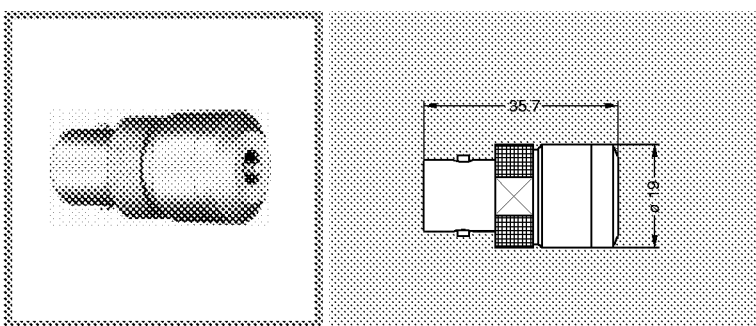
| Part number | Weight (g) | Note |
|----------------|------------|------|
| ABB.00.250.NTM | 9.4 | ● |

P6 Panel cut-out



ACA Adaptor from LEMO socket to C plug

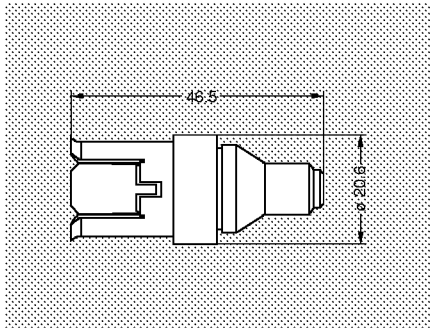
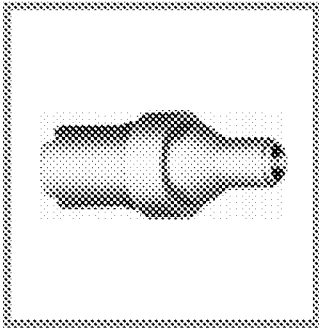
| Part number | Weight (g) | Note |
|----------------|------------|------|
| ACA.00.250.NTL | 32 | ● |



ACB Adaptor from LEMO socket to C socket

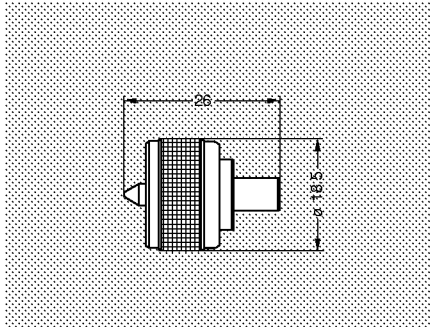
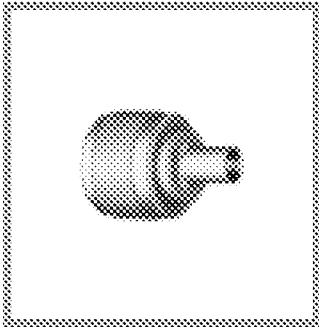
| Part number | Weight (g) | Note |
|----------------|------------|------|
| ACB.00.250.NTM | 50.3 | ● |

● Available ○ On request



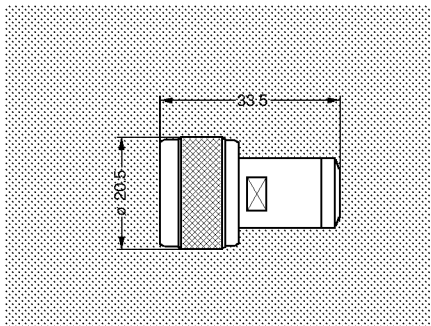
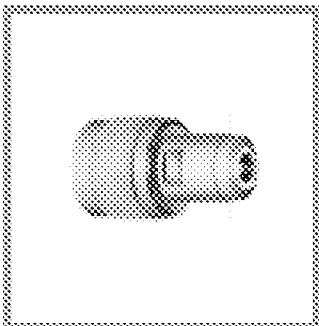
AGG Adaptor from LEMO socket to General-Radio socket type 874

| Part number | Weight (g) | Note |
|----------------|------------|------|
| AGG.00.250.NTM | 20 | ● |



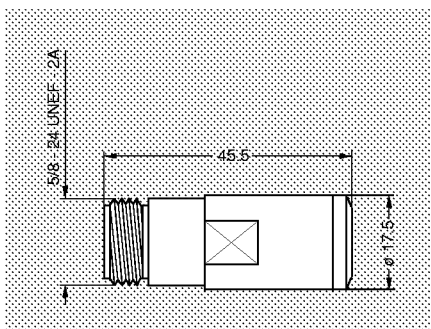
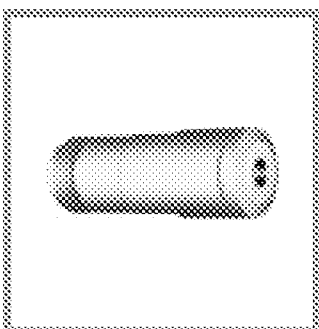
AGH Adaptor from LEMO socket to UHF plug

| Part number | Weight (g) | Note |
|----------------|------------|------|
| AGH.00.250.NTL | 13.8 | ● |



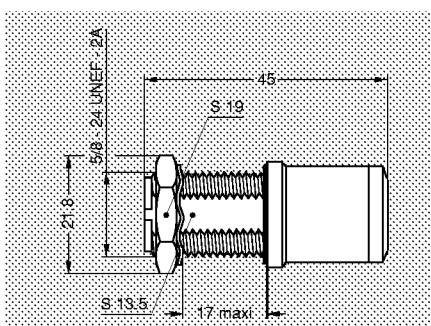
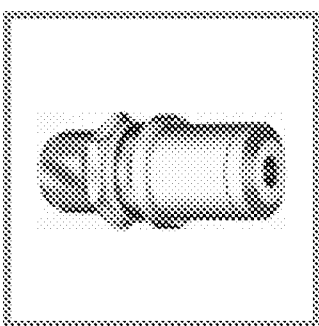
ANA Adaptor from LEMO socket to N plug

| Part number | Weight (g) | Note |
|----------------|------------|------|
| ANA.00.250.NTL | 38 | ● |



ANB Adaptor from LEMO socket to N socket

| Part number | Weight (g) | Note |
|----------------|------------|------|
| ANB.00.250.NTM | 61.7 | ● |

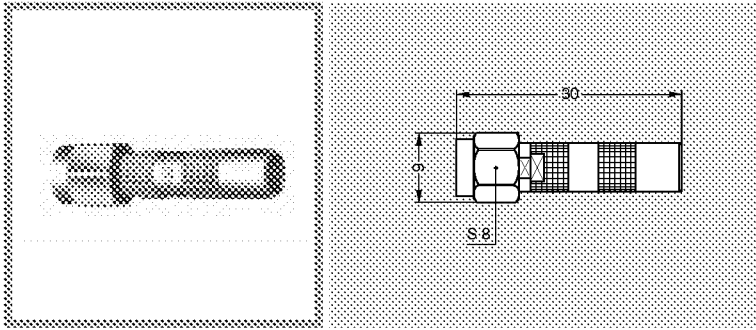


ANC Adaptor from LEMO socket to N fixed socket

| Part number | Weight (g) | Note |
|----------------|------------|------|
| ANC.00.250.NTM | 63.5 | ● |

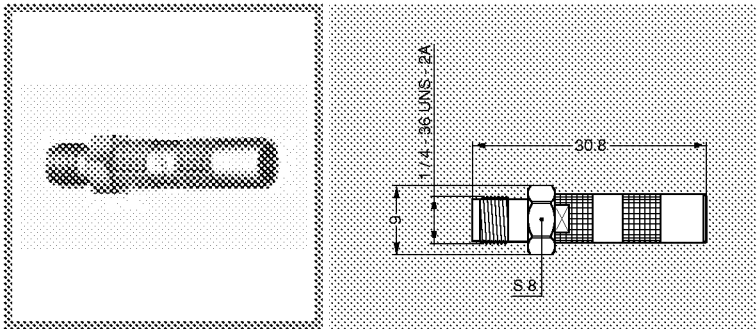
P8 Panel cut-out

● Available ○ On request



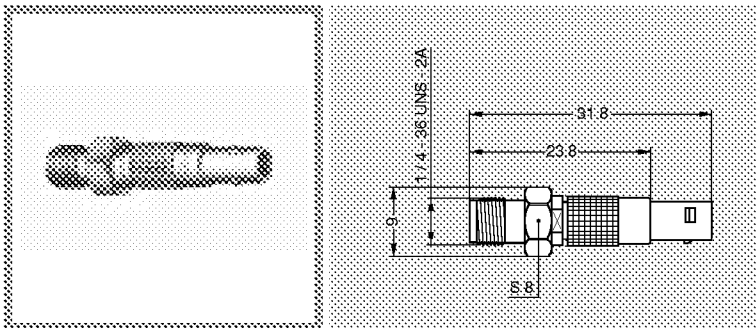
ASA Adaptor from LEMO socket to SMA plug

| Part number | Weight (g) | Note |
|----------------|------------|------|
| ASA.00.250.NTL | 4.9 | ● |



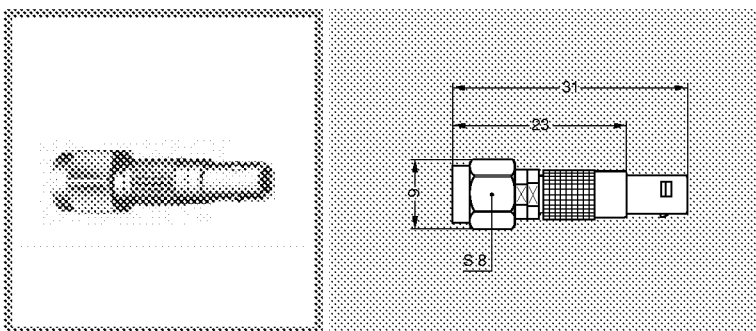
ASB Adaptor from LEMO socket to SMA socket

| Part number | Weight (g) | Note |
|----------------|------------|------|
| ASB.00.250.NTM | 4.6 | ● |



ASF Adaptor from LEMO plug to SMA socket

| Part number | Weight (g) | Note |
|----------------|------------|------|
| ASF.00.250.NTA | 4.6 | ● |

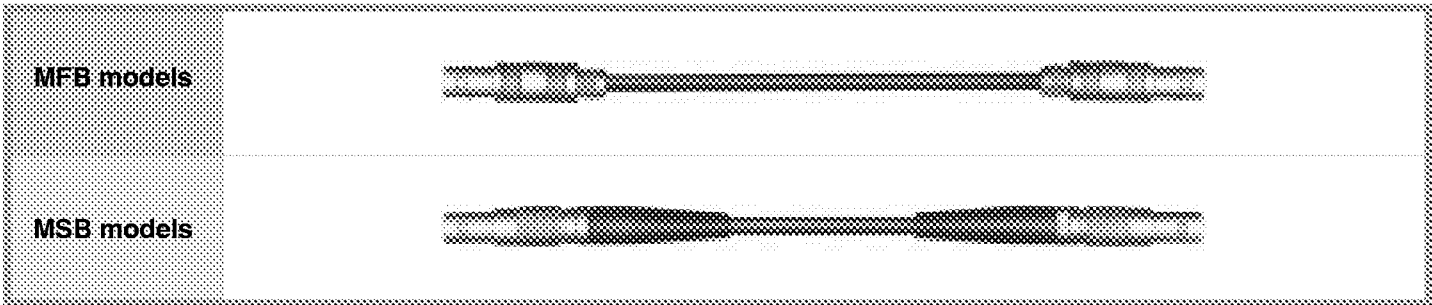


ASG Adaptor from LEMO plug to SMA plug

| Part number | Weight (g) | Note |
|----------------|------------|------|
| ASG.00.250.NTC | 4.9 | ● |

● Available ○ On request

Assembled Cables



Delay lines

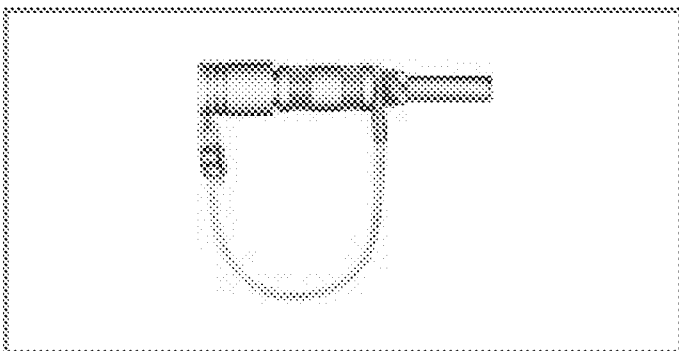
| Part number | Delay (ns) | Part number |
|-------------------|------------|-------------------|
| MFB.00.250.RTE005 | 0.5 | MSB.00.250.RTE005 |
| MFB.00.250.RTE010 | 1.0 | MSB.00.250.RTE010 |
| MFB.00.250.RTE020 | 2.0 | MSB.00.250.RTE020 |
| MFB.00.250.RTE030 | 3.0 | MSB.00.250.RTE030 |
| MFB.00.250.RTE040 | 4.0 | MSB.00.250.RTE040 |
| MFB.00.250.RTE050 | 5.0 | MSB.00.250.RTE050 |
| MFB.00.250.RTE060 | 6.0 | MSB.00.250.RTE060 |
| MFB.00.250.RTE080 | 8.0 | MSB.00.250.RTE080 |
| MFB.00.250.RTE100 | 10.0 | MSB.00.250.RTE100 |
| MFB.00.250.RTE160 | 16.0 | MSB.00.250.RTE160 |
| MFB.00.250.RTE200 | 20.0 | MSB.00.250.RTE200 |
| MFB.00.250.RTE320 | 32.0 | MSB.00.250.RTE320 |
| MFB.00.250.RTE640 | 64.0 | MSB.00.250.RTE640 |

Assembled Cables

| Part number | Length (cm) | Part number |
|-------------------|-------------|-------------------|
| MFB.00.250.LTE010 | 10 | MSB.00.250.LTE010 |
| MFB.00.250.LTE020 | 20 | MSB.00.250.LTE020 |
| MFB.00.250.LTE030 | 30 | MSB.00.250.LTE030 |
| MFB.00.250.LTE040 | 40 | MSB.00.250.LTE040 |
| MFB.00.250.LTE050 | 50 | MSB.00.250.LTE050 |
| MFB.00.250.LTE060 | 60 | MSB.00.250.LTE060 |
| MFB.00.250.LTE080 | 80 | MSB.00.250.LTE080 |
| MFB.00.250.LTE100 | 100 | MSB.00.250.LTE100 |
| MFB.00.250.LTE150 | 150 | MSB.00.250.LTE150 |
| MFB.00.250.LTE200 | 200 | MSB.00.250.LTE200 |
| MFB.00.250.LTE300 | 300 | MSB.00.250.LTE300 |
| MFB.00.250.LTE400 | 400 | MSB.00.250.LTE400 |
| MFB.00.250.LTE500 | 500 | MSB.00.250.LTE500 |

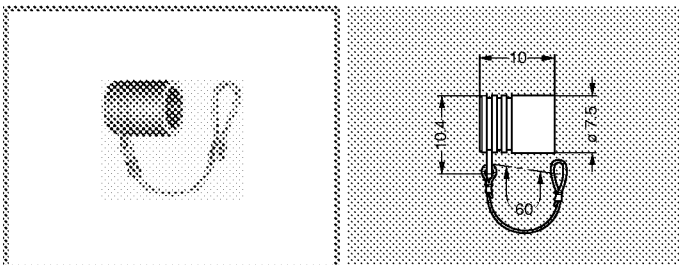
Note: the standard cable used to manufacture these cable assemblies is CCH.99.281.505 (LEMO) as per IEC.50.2.1 standard. On request this type of cable can be replaced by other coaxial cables. Other cable lengths are available on request.

Accessories



Fitting of the cord

Slide the plug into the loop of the cord. Place the loop into the groove in front of the collet nut and tighten the loop.

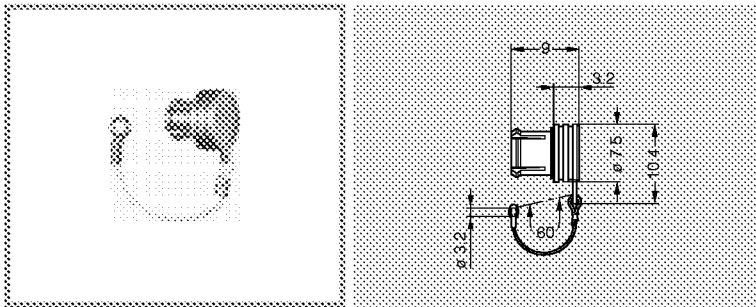


BFA Plug Caps

| Part number | Weight (g) |
|-----------------|------------|
| BFA.00.100.PCSG | 0.7 |

Note: upon request this cap can be supplied in black and the last letter "G" of the part number should be replaced with "N".

- ❖ Body material: Polyoxymethylen (POM) grey
- ❖ Cord material: Polyamid 6, white
- ❖ O-ring material: Silicone rubber
- ❖ Maximum operating temperature: 100°C
- ❖ Watertightness: IP61 according to IEC 529



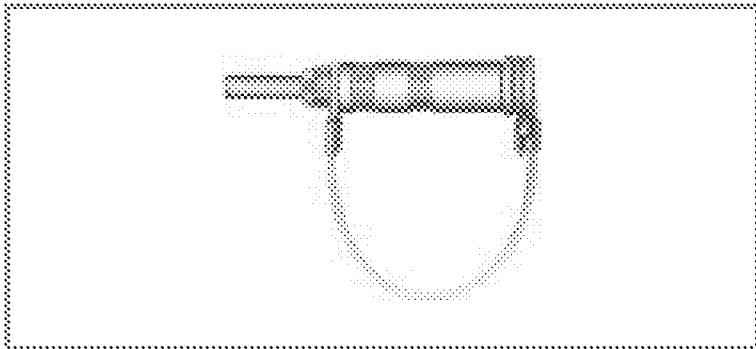
- ❖ Body material: Polyoxymethylen (POM) grey
- ❖ Cord material: Polyamid 6, white

BRA Blanking cap for fixed socket and free straight socket

| Part number | Weight (g) |
|-----------------|------------|
| BRA.00.200.PCSG | 0.6 |

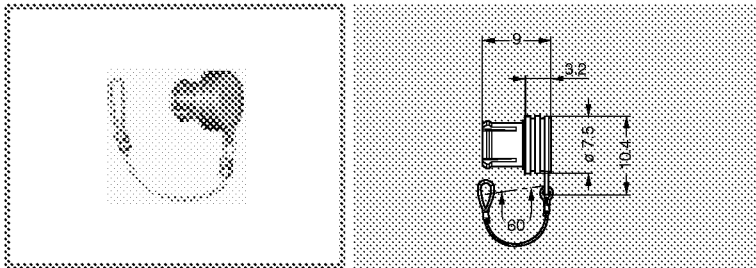
Note: upon request this cap can be supplied in black and the last letter "G" of the part number should be replaced with "N".

- ❖ O-ring material: Silicone rubber
- ❖ Maximum operating temperature: 100°C
- ❖ Watertightness: IP61 according to IEC 529



Fitting of the cord

Slide the socket into the loop of the cord. Place the loop into the groove in front of the collet nut and tighten the loop.

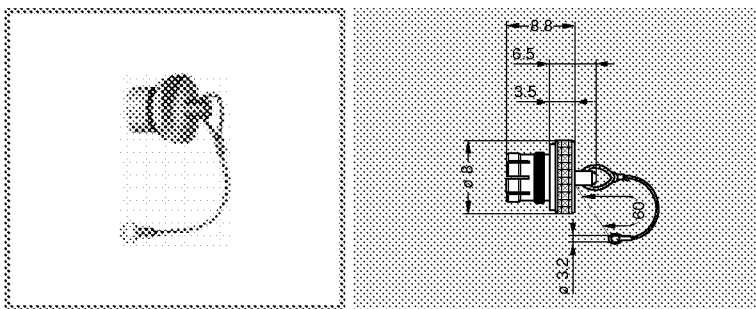


BRD Blanking cap for free socket

| Part number | Weight (g) |
|-----------------|------------|
| BRD.00.200.PCSG | 0.5 |

Note: upon request this cap can be supplied in black and the last letter "G" of the part number should be replaced with "N".

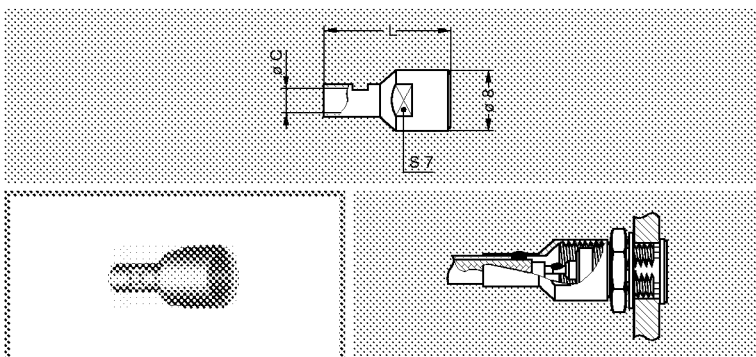
- ❖ Body material: Polyoxymethylen (POM) grey
- ❖ Cord material: Polyamid 6, white
- ❖ O-ring material: Silicone rubber
- ❖ Maximum operating temperature: 100°C
- ❖ Watertightness: IP61 according to IEC 529



BRE Blanking cap for fixed socket, free socket and coupler

| Part number | Weight (g) |
|----------------|------------|
| BRE.00.200.NAS | 6.5 |

- ❖ Body material: Brass (UNS C 38500), nickel-plated (3 μm)
- ❖ Cable material: Stainless steel
- ❖ O-ring material: Silicone rubber or FPM
- ❖ Maximum operating temperature: 250°C
- ❖ Watertightness: IP61 according to IEC 529

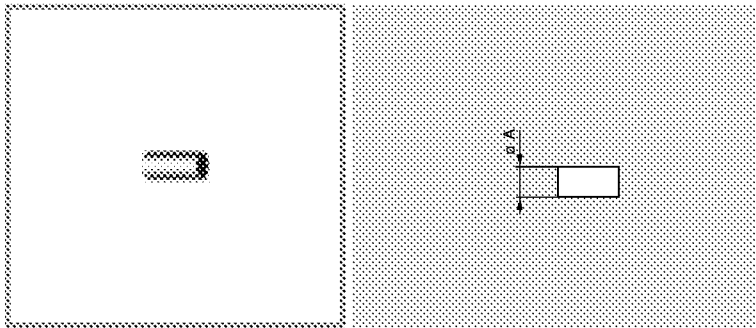


GCD Earthing cap

| Part number | Cable group | Dim. | |
|---------------|-------------|------|-----|
| | | L | C |
| GCD.00.020.LA | 1 | 12 | 2.0 |
| GCD.00.032.LA | 2-3-4 | 16 | 3.2 |
| GCD.00.050.LA | 6 | 19 | 5.0 |

Note: the shield braid of the cable should be soldered onto the back of the cap screwed on the socket outer shell.

- ❖ Material: Brass (UNS C 38500) gold-plated (0.5 μm)

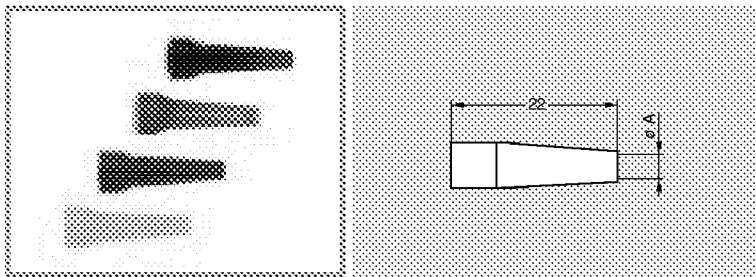


❖ Material: Copper (UNS C 18700) nickel-plated (3µm)

FFS Crimp ferrule

| Part number | Cable group | Dim. |
|---------------|-------------|----------|
| | | ϕA |
| FFS.00.160.DN | 1 | 3.1 |
| FFS.00.161.MN | 2-3-4 | 3.8 |
| FFS.00.162.DN | 8 | 4.4 |
| FFS.00.163.DN | 5 | 5.3 |
| FFS.00.164.DN | 6 | 6.2 |
| FFV.00.160.DN | 7 | 6.3 |

Note: sockets and plugs to be crimped are always supplied with a crimp ferrule. To order this accessory separately, use the above part numbers.



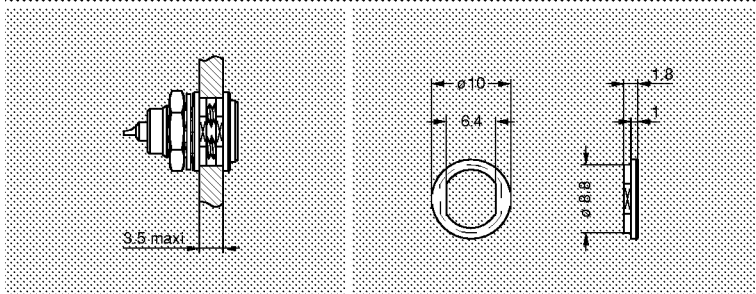
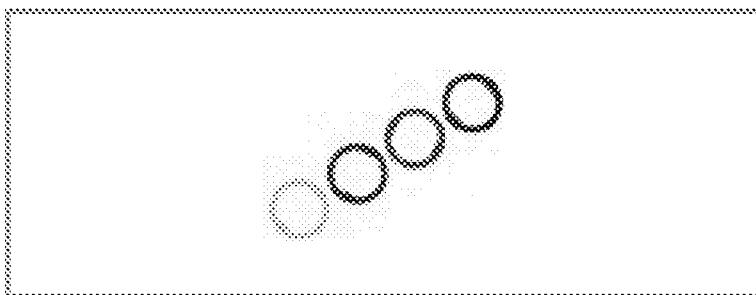
| Ref. | Colour | Ref. | Colour | Ref. | Colour |
|------|--------|------|--------|------|--------|
| A | blue | J | yellow | R | red |
| B | white | M | brown | S | orange |
| G | grey | N | black | V | green |

GMB Strain relief

| Part number | ϕ Cable | | Dim. | Nut for fitting the strain relief part nb |
|---------------|--------------|-----|------|---|
| | max | min | A | |
| GMB.00.025.DG | 2.8 | 2.5 | 2.5 | FFM.00.130.LN |
| GMB.00.028.DG | 3.1 | 2.8 | 2.8 | FFM.00.130.LN |
| GMB.00.032.DG | 3.5 | 3.2 | 3.2 | FFM.00.130.LN |

Note:
a) for use with all crimp models and nut for fitting a strain relief
b) the last letter of the part number "G" specifies the colour grey. Refer to the table to the left to define another colour and replace the letter "G" by the one corresponding to the colour required.

❖ Material: Polyurethan (Desmopan 786)
❖ Operating temperature: -40°C + 80°C



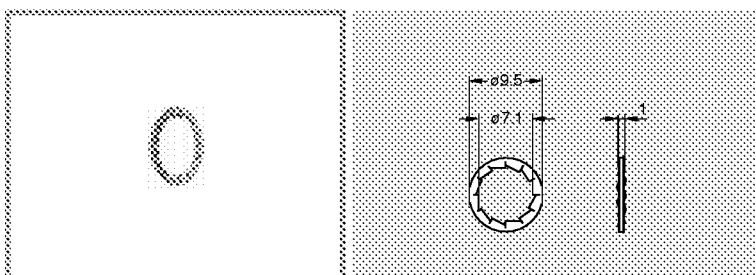
GRA Insulating washers

| Part number | Weight (g) |
|---------------|------------|
| GRA.00.269.GG | 0.1 |

Note:
a) sockets and plugs mounted on panels can be fitted with insulating washers. The nine colours available combined with those for the strain reliefs makes colour coding possible.
b) the last letter of the part number "G" specifies the colour grey. Refer to the table below to define another colour and replace the letter "G" by the one corresponding to the colour required.

❖ Material: Polyamid (PA.6)
❖ Operating temperature: -40°C + 80°C

| Ref. | Colour | Ref. | Colour | Ref. | Colour |
|------|--------|------|--------|------|--------|
| A | blue | J | yellow | R | red |
| B | white | M | brown | S | orange |
| G | grey | N | black | V | green |

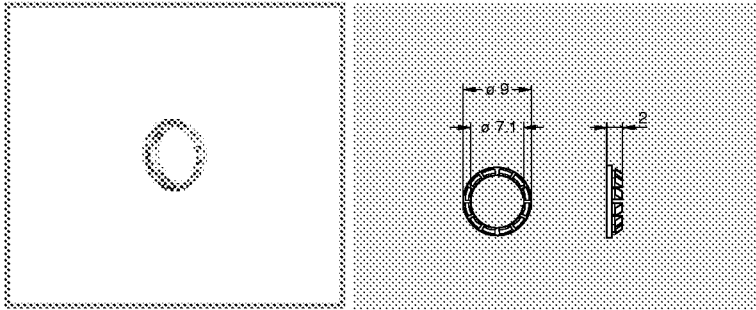


GBA Locking washer

| Part number | Weight (g) |
|---------------|------------|
| GBA.00.250.FN | 0.2 |

Note: sockets and plugs are always supplied with a locking washer. To order this accessory separately, use the above part number.

❖ Material: Brass (UNS C 52100) nickel-plated (3 µm)

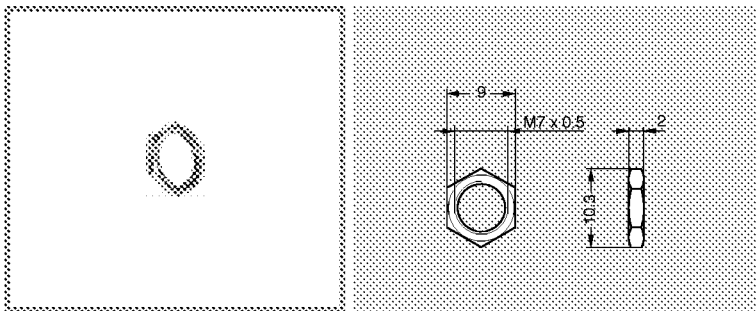


GBB Tapered washer

| Part number | Weight (g) |
|---------------|------------|
| GBB.00.250.LN | 0.2 |

Note: to order this accessory separately, use the above part number.

⊗ Material: Brass (UNS C 38500) nickel-plated (3 μm)

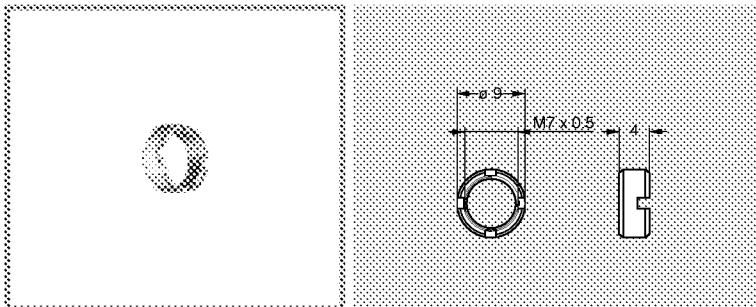


GEA Hexagonal nut

| Part number | Weight (g) |
|---------------|------------|
| GEA.00.240.LN | 0.6 |

Note: sockets and plugs are supplied with a hexagonal nut as standard. To order this accessory separately, use the above part number. The last letters "LN" of the part number refer to the nut material and treatment. If a nut in aluminium alloy is desired, replace the last letters of the part number by "PT".

- ⊗ Material:
 - Brass (UNS C 38500) nickel-plated (3 μm)
 - Aluminium alloy (AA 6012) natural anodized

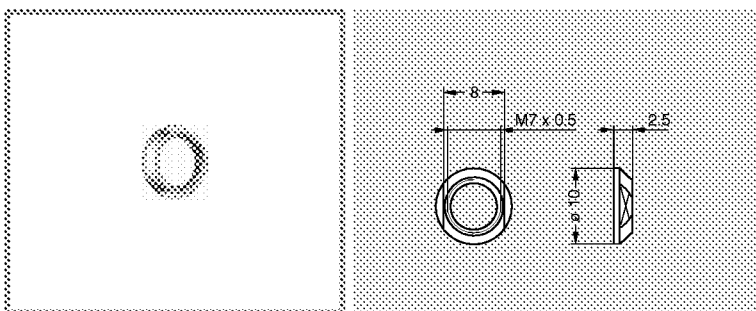


GEB Round nut

| Part number | Weight (g) |
|---------------|------------|
| GEB.00.240.LN | 0.8 |

Note: to order this accessory separately, use the above part number.

⊗ Material: Brass (UNS C 38500) nickel-plated (3 μm)

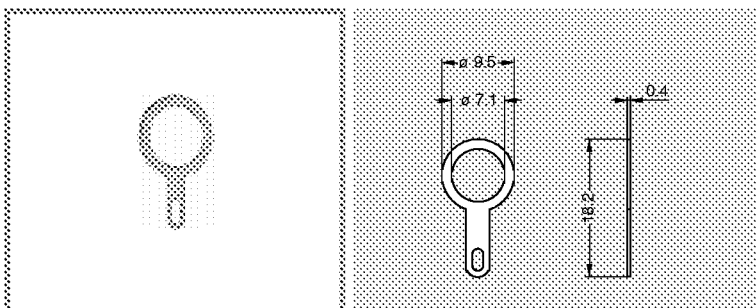


GEC Conical nut

| Part number | Weight (g) |
|---------------|------------|
| GEC.00.240.LN | 0.6 |

Note: to order this accessory separately, use the above part number.

⊗ Material: Brass (UNS C 38500) nickel-plated (3 μm)

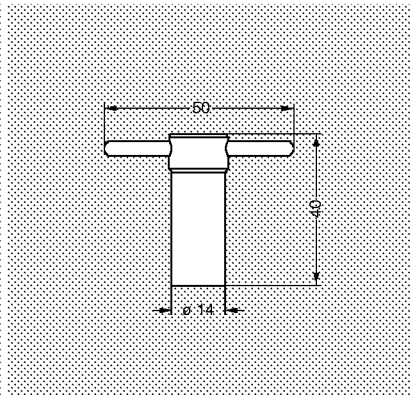
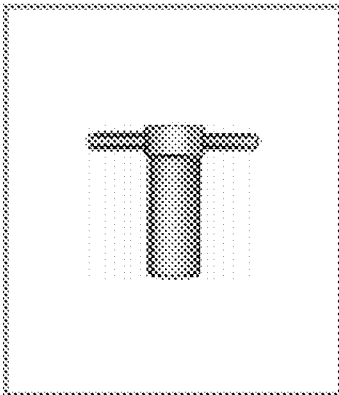


GCA Earthing Washer

| Part number | Weight (g) |
|---------------|------------|
| GCA.00.255.LT | 0.2 |

⊗ Material: Brass (UNS C 27400) treated CuSnZn (2 μm)

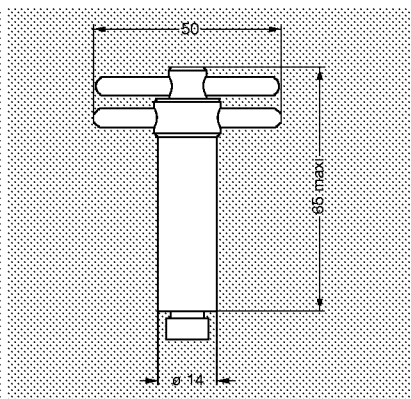
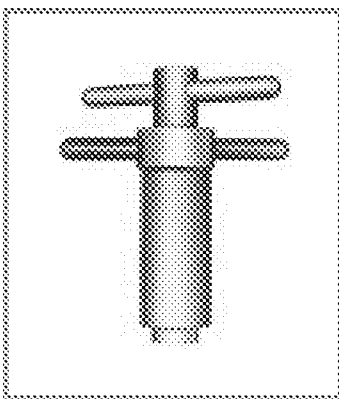
Tooling



DCG Spanner for hexagonal nut

| Part number | Part number of the nut |
|----------------|------------------------|
| DCG.91.149.0TN | GEA.00.240.LN |

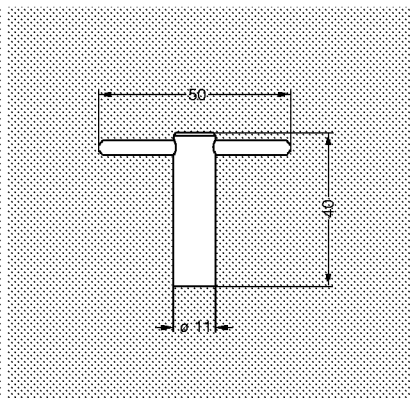
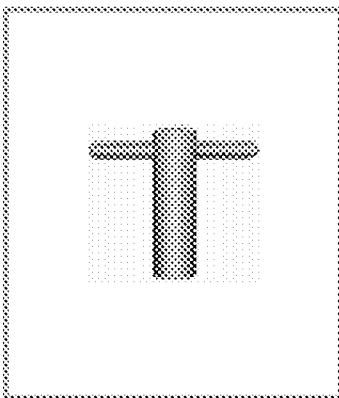
❖ Material: Blackened steel



DCA Spanner for hexagonal nut with locator for flats on socket thread

| Part number | Part number of the nut |
|----------------|------------------------|
| DCA.91.149.0TN | GEA.00.240.LN |

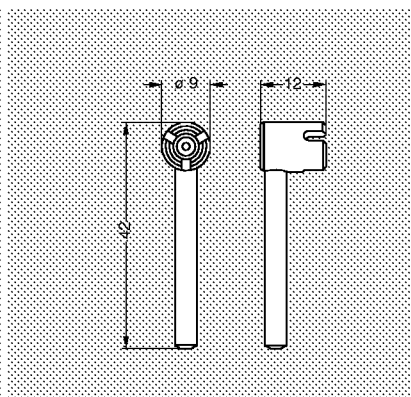
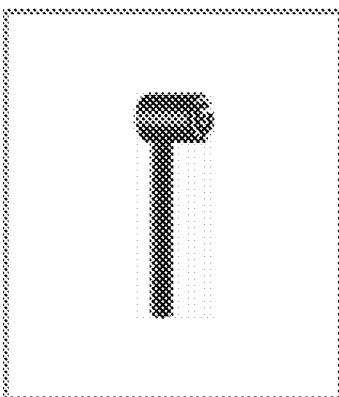
❖ Material: Blackened steel



DCB Spanner for round nut

| Part number | Part number of the nut |
|----------------|------------------------|
| DCB.91.119.0TN | GEB.00.240.LN |

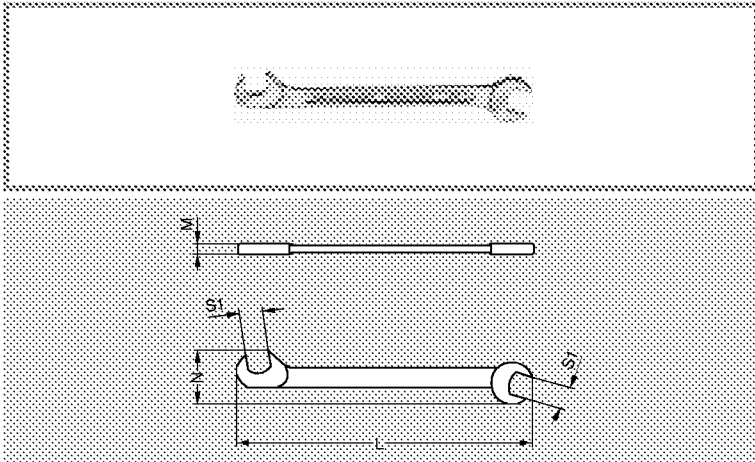
❖ Material: Blackened steel



DCN Spanner for assembling plug with 3 latches

| Part number |
|----------------|
| DCN.91.905.0TK |

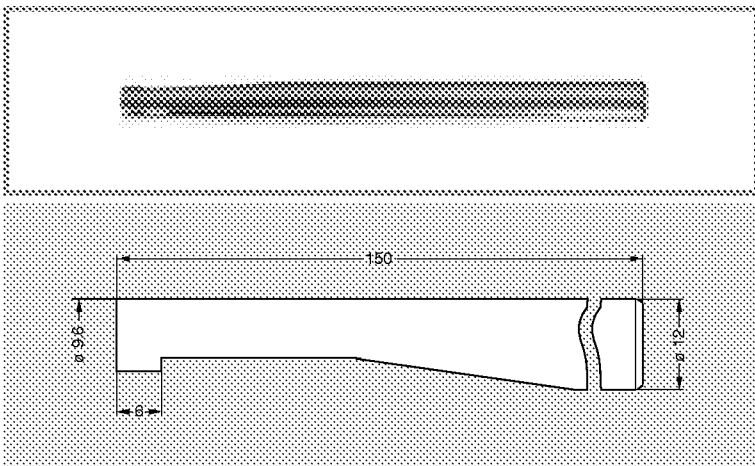
❖ Material: Blackened steel



DCP Flat spanner for collet nut

| Part number | Dimensions | | | |
|---------------|------------|---|------|-----|
| | L | M | N | S1 |
| DCP 99.045.TC | 70 | 2 | 10.5 | 4.5 |
| DCP 99.050.TC | 78 | 2 | 12.6 | 5.0 |
| DCP 99.055.TC | 78 | 2 | 12.6 | 5.5 |
| DCP 99.060.TC | 78 | 2 | 12.6 | 6.0 |

❖ Material: Chrome-plated steel

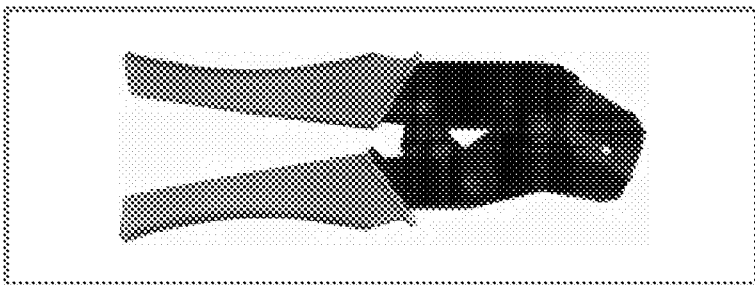


DCR Extraction tool for plugs

| Part number |
|---------------|
| DCR 91.106.PT |

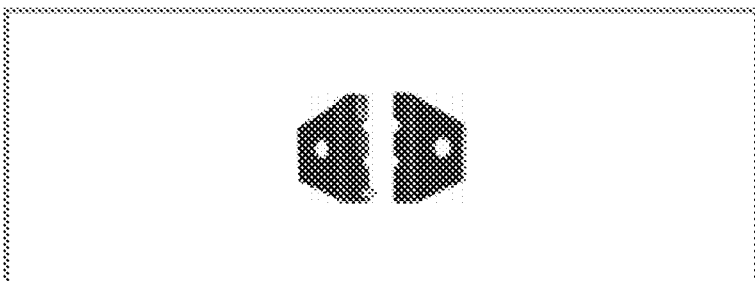
❖ Material: Aluminium alloy

Note: this type of tool has been produced in order to facilitate the mating and unmating of plugs and is particularly useful in high density applications.



DPE Crimping tool with die

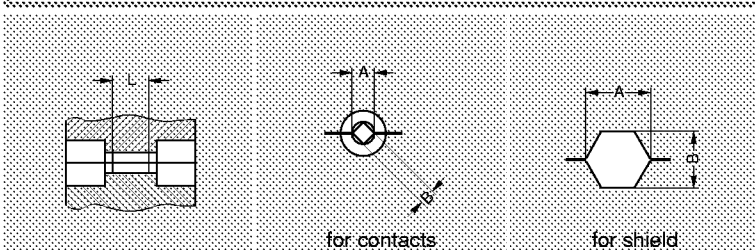
| Part number | Cable group |
|---------------|-------------|
| DPE 99.123.1K | 1 |
| DPE 99.123.8K | 2-3-4 |
| DPE 99.124.3K | 8 |
| DPE 99.125.2K | 5 |
| DPE 99.176.2K | 6-7 |



DPN Dies

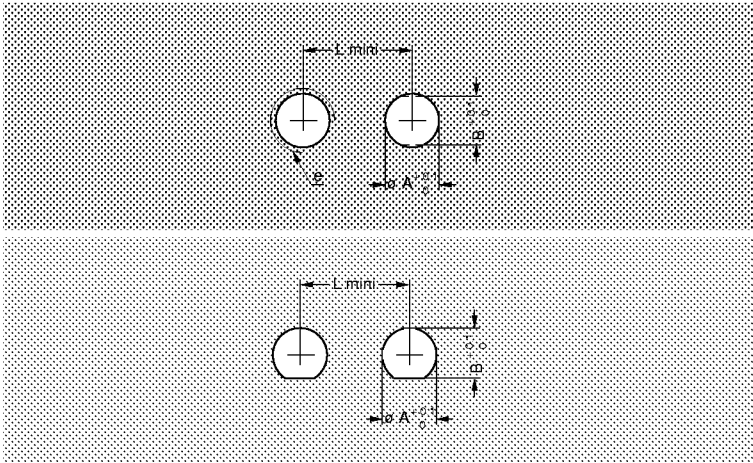
| Part number | Cable group | Die dimension | | | | | |
|---------------|-------------|---------------|------|-----|------------|------|--|
| | | For contacts | | | For shield | | |
| | | A | B | L | A | B | |
| DPN 99.123.1K | 1 | 1.29 | 0.91 | 2.0 | 3.10 | 2.70 | |
| DPN 99.123.8K | 2-3-4 | 1.29 | 0.91 | 2.0 | 3.80 | 3.30 | |
| DPN 99.124.3K | 8 | 1.29 | 0.91 | 2.0 | 4.36 | 3.78 | |
| DPN 99.125.2K | 5 | 1.29 | 0.91 | 2.0 | 5.20 | 4.50 | |
| DPN 99.176.2K | 6-7 | 1.71 | 1.21 | 2.5 | 6.20 | 5.37 | |

❖ Dies material: Blackened steel



Cut-Out

Panel cut-out

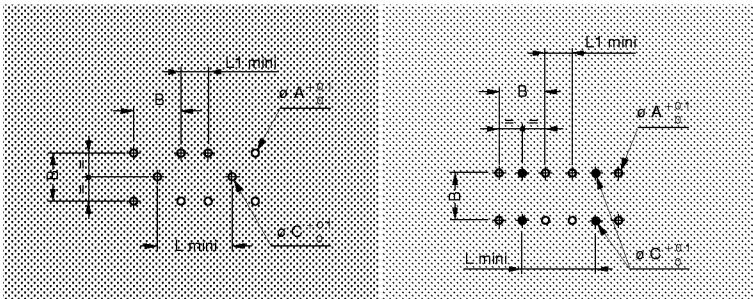


| Cut-out | Model | Dimensions | | | |
|---------|------------------------------------|---------------------|------|------|--------|
| | | A | B | L | e |
| P1 | HGP-HGW-SWH-ECP EPE-EPS-FAB-EWF | 7.1 | - | 14.5 | - |
| P2 | EWV | - | - | 12.0 | M7x0.5 |
| P3 | ERC | - | - | 9.0 | M7x0.5 |
| P4 | ERT | 7.0 _{0.02} | - | - | - |
| P5 | Other models 1) | 7.1 | 6.5 | 14.5 | - |
| P6 | ABB | 9.7 | 9.0 | 15.0 | - |
| P7 | ABD | 12.9 | 11.7 | 20.5 | - |
| P8 | ANC | 16.1 | 13.7 | 24.0 | - |

Note: 1) If these models are used with a tapered washer GBB, the panel cut-out must be according P1.

Recommended mounting nut torque: 2.5 Nm.

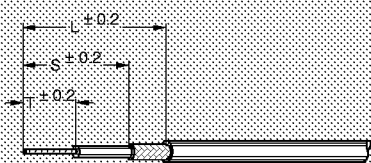
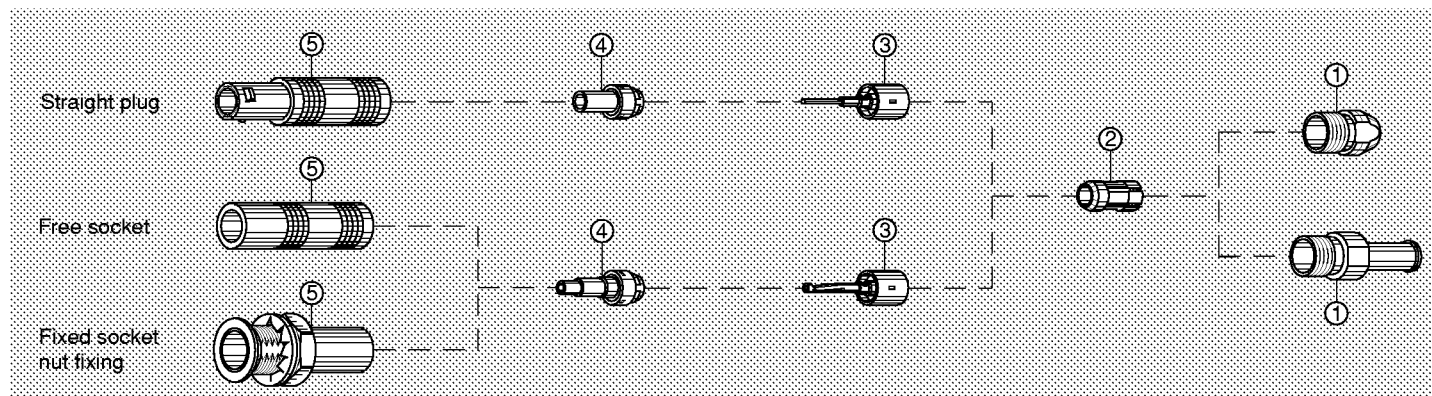
PCB drilling pattern



| Cut-out | Model | Dimensions | | | | |
|---------|--------------|------------|------|------|-----|-----|
| | | A | B | L | L1 | C |
| P9 | EPN | 0.9 | 5.08 | - | 2.0 | - |
| P10 | Other models | 0.8 | 5.08 | 8.0 | 2.9 | 0.8 |
| P11 | FPA | 0.8 | 5.08 | 8.0 | 2.9 | 1.0 |
| P12 | EPE-EPS | 0.8 | 5.08 | 14.5 | 9.4 | 0.8 |
| P13 | EPY | 0.8 | 5.08 | 9.0 | 3.9 | 0.8 |

Terminated Instructions

Terminating of plugs and straight sockets with cable collet M1 M2 M3



1. Cable preparation

First place the strain relief (if to be used) on the cable. Strip the cable according to dimensions below.

| Cable group | M1 | | | M2 | | | M3 | | |
|-------------|----|-----|---|-----|-----|----|----|---|---|
| | T | S | L | T | S | L | T | S | L |
| 1-2-3-4-8 | 4 | 4.5 | 8 | - | - | - | 5 | 5 | 8 |
| 6-7 | - | - | - | 7.5 | 8.5 | 13 | - | - | - |

2. Cable termination

2.1 Place the collet nut ① and the collet ② on the cable. Fold back the shield braid onto the conical part of the collet, and trim to the outer edge of the collet

2.2 Slide the subassembly ③ to trap the shield braiding and solder the central conductor into the contact.

2.3 Slide the insulator ④ onto the subassembly ③ until it rests against the earthing sleeve of the subassembly ③.

2.4 Slide the assembly into the connector outer shell ⑤. Screw the collet nut ① into the connector outer shell ⑤ using the appropriate tool and tighten to a torque of 0.25 Nm (see "Tooling" on page 31 and 32). Push the strain relief (if used) onto the collet nut.

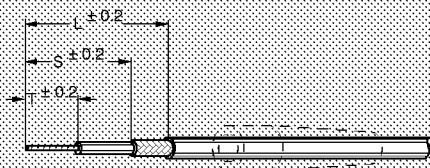
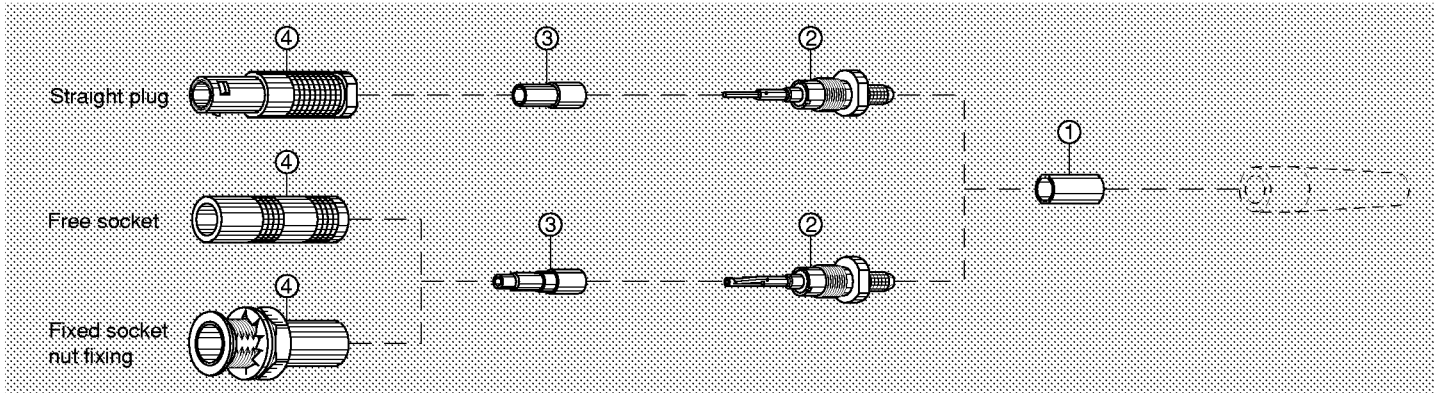
Note: these terminating instructions apply to the following models:

M1 = FFA, FFE, FFF, PCA, PSA

M2 = FFY

M3 = FFC

Terminating of plugs and straight sockets with cable crimping (crimp contact) M4



1. Cable preparation

First place the strain relief (if to be used) on the cable. Strip the cable according to dimensions below.

| Cable group | M4 | | |
|-------------|----|----|------|
| | T | S | L |
| 1-2-3-4-5-8 | 7 | 15 | 19.5 |
| 6-7 | 7 | 15 | 21.5 |

2. Cable termination

2.1 Place crimp ferrule ① on the cable. Widen the shield braid. Slide the subassembly ② into the cable until the insulator rests against the dielectric and the cable conductor is visible through the contact inspection hole.

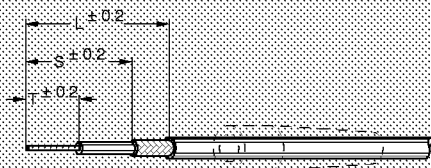
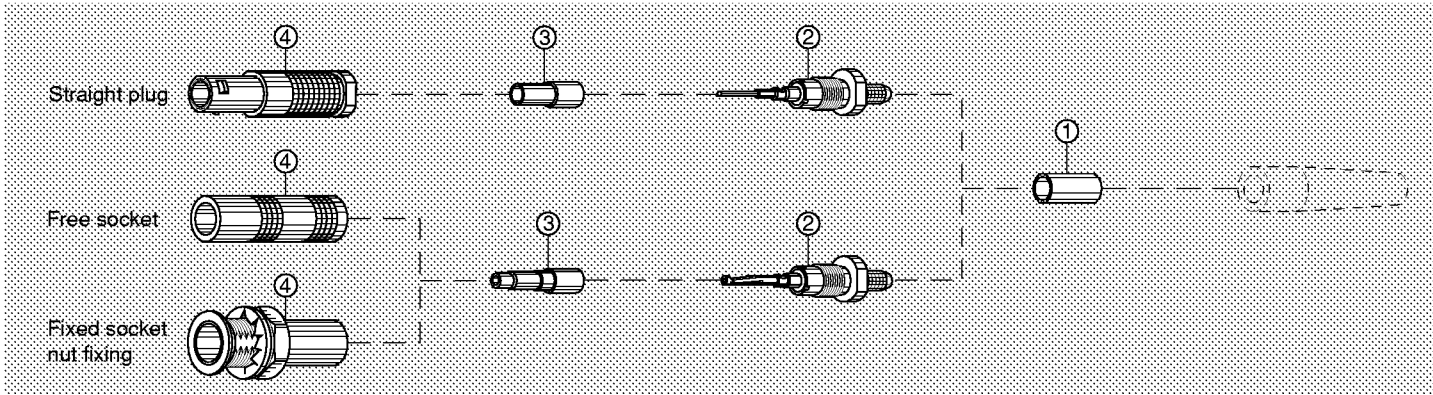
2.2 Crimp the contact with the LEMO crimping tool using the square hole (see "Tooling" on page 32). Gently pull the cable in order to check the crimping.

2.3 Slide the crimp ferrule ① onto the shield until it rests against the crimp backnut of the subassembly ②. Crimp with the same LEMO crimping tool using the hexagonal opening. Slide the insulator ③ onto the subassembly ②.

2.4 Slide the assembly into the connector shell ④ and screw it onto the subassembly ②. Tighten using the appropriate tool to a torque of 0.25 Nm (see "Tooling" on page 31 and 32). Push the strain relief (if used) onto the crimp ferrule ①.

Note: these terminating instructions apply to the following models:
M4 = FFS, FFV, PCS, PSS, PES

Terminating of plugs and straight sockets with cable crimping (solder contact) M5



1. Cable preparation

First place the strain relief (if to be used) on the cable. Strip the cable according to dimensions below.

| Cable group | M5 | | |
|-------------|----|----|----|
| | T | S | L |
| 1-2-3-4-5-6 | 5 | 12 | 17 |
| 6-7 | 5 | 12 | 19 |

2. Cable terminating

2.1 Place the crimp ferrule ① on the cable. Widen the shield braid. Slide the subassembly ② over the cable until the insulator rests against the dielectric and the cable conductor is visible through the contact solder hole.

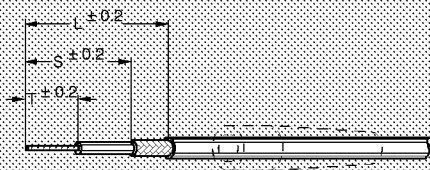
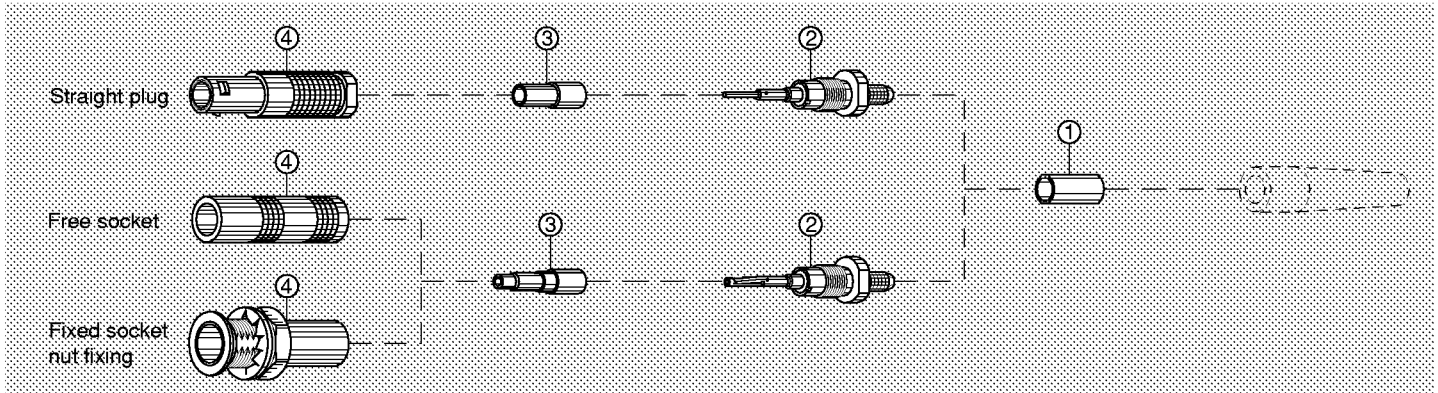
2.2 Solder the conductor through the hole.

2.3 Slide the crimp ferrule ① onto the shield until it rests against the crimp backnut of the subassembly ②. Crimp with the LEMO crimping tool using the hexagonal opening (see "Tooling" on page 32). Slide the insulator ③ onto the subassembly ②.

2.4 Slide the assembly into the connector shell ④ and screw it onto the subassembly ②. Tighten using the appropriate tool to a torque of 0.25 Nm (see tooling on pages 31 and 32). Push the strain relief (if used) onto the crimp ferrule.

Note: these terminating instructions apply to the following models:
M5 = FFS, FFV, PCS, PSS, PES

Terminating of plugs and straight sockets with cable crimping (crimp contact) M4



1. Cable preparation

First place the strain relief (if to be used) on the cable. Strip the cable according to dimensions below.

| Cable group | M4 | | |
|-------------|----|----|------|
| | T | S | L |
| 1-2-3-4-5-8 | 7 | 15 | 19.5 |
| 6-7 | 7 | 15 | 21.5 |

2. Cable termination

2.1 Place crimp ferrule ① on the cable. Widen the shield braid. Slide the subassembly ② into the cable until the insulator rests against the dielectric and the cable conductor is visible through the contact inspection hole.

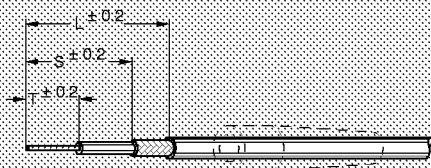
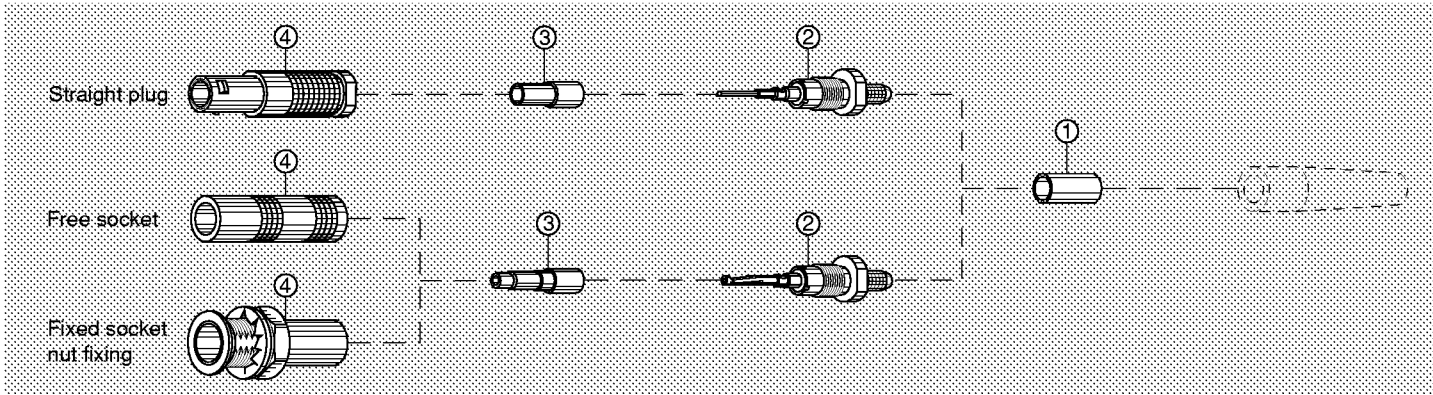
2.2 Crimp the contact with the LEMO crimping tool using the square hole (see "Tooling" on page 32). Gently pull the cable in order to check the crimping.

2.3 Slide the crimp ferrule ① onto the shield until it rests against the crimp backnut of the subassembly ②. Crimp with the same LEMO crimping tool using the hexagonal opening. Slide the insulator ③ onto the subassembly ②.

2.4 Slide the assembly into the connector shell ④ and screw it onto the subassembly ②. Tighten using the appropriate tool to a torque of 0.25 Nm (see "Tooling" on page 31 and 32). Push the strain relief (if used) onto the crimp ferrule ①.

Note: these terminating instructions apply to the following models:
M4 = FFS, FFV, PCS, PSS, PES

Terminating of plugs and straight sockets with cable crimping (solder contact) M5



1. Cable preparation

First place the strain relief (if to be used) on the cable. Strip the cable according to dimensions below.

| Cable group | M5 | | |
|-------------|----|----|----|
| | T | S | L |
| 1-2-3-4-5-6 | 5 | 12 | 17 |
| 6-7 | 5 | 12 | 19 |

2. Cable terminating

2.1 Place the crimp ferrule ① on the cable. Widen the shield braid. Slide the subassembly ② over the cable until the insulator rests against the dielectric and the cable conductor is visible through the contact solder hole.

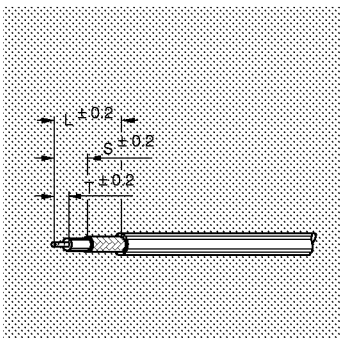
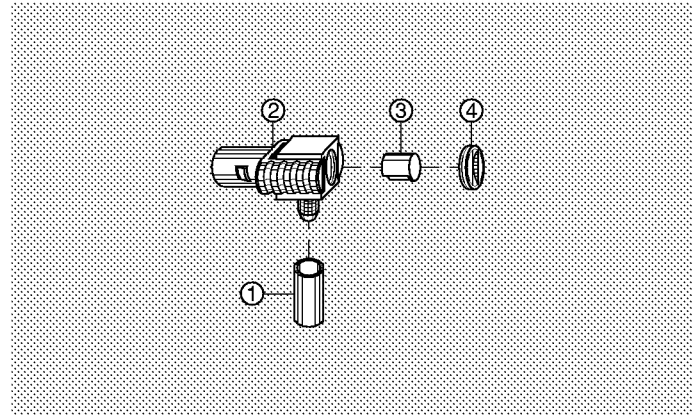
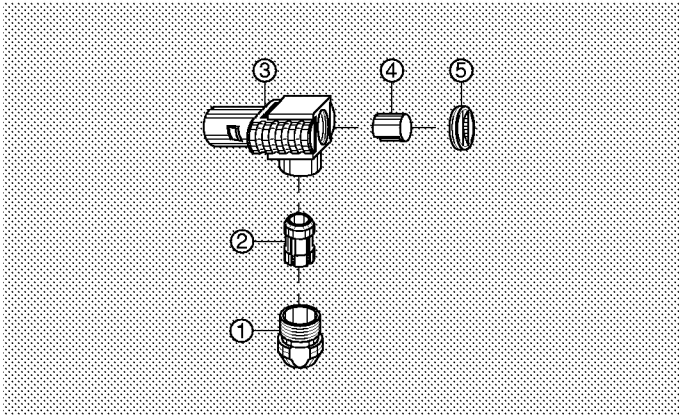
2.2 Solder the conductor through the hole.

2.3 Slide the crimp ferrule ① onto the shield until it rests against the crimp backnut of the subassembly ②. Crimp with the LEMO crimping tool using the hexagonal opening (see "Tooling" on page 32). Slide the insulator ③ onto the subassembly ②.

2.4 Slide the assembly into the connector shell ④ and screw it onto the subassembly ②. Tighten using the appropriate tool to a torque of 0.25 Nm (see tooling on pages 31 and 32). Push the strain relief (if used) onto the crimp ferrule.

Note: these terminating instructions apply to the following models:
M5 = FFS, FFV, PCS, PSS, PES

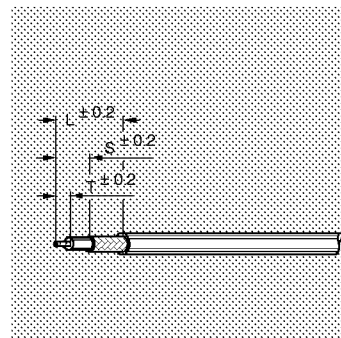
Terminating of elbow plugs (90°) with cable collet M6 and cable crimp M7



1. Cable preparation

First place the strain relief (if to be used) on the cable. Strip the cable according to dimensions below.

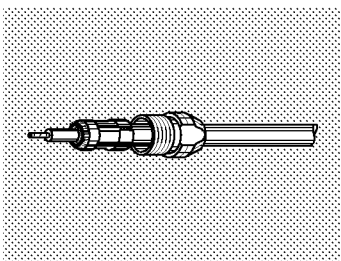
| Cable group | M6 | | |
|-------------|----|-----|-----|
| | T | S | L |
| 1-2-3-4-8 | 1 | 3.5 | 6.5 |



1. Cable preparation

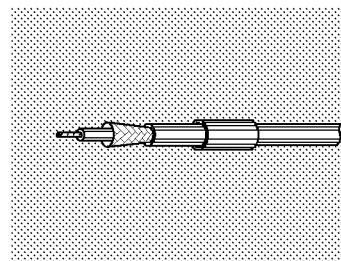
First place the strain relief (if to be used) on the cable. Strip the cable according to dimensions below.

| Cable group | M7 | | |
|-------------|----|-----|----|
| | T | S | L |
| 1-2-3-4-8 | 1 | 4.5 | 9 |
| 6-7 | 3 | 4.5 | 11 |



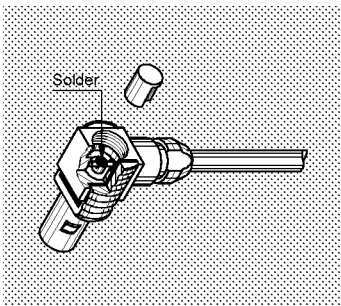
2. Cable terminating

2.1 Place the crimp ferrule ① and collet ② on the cable. Fold back the shield braid onto the conical part of the collet, and trim to outer edge of the collet.

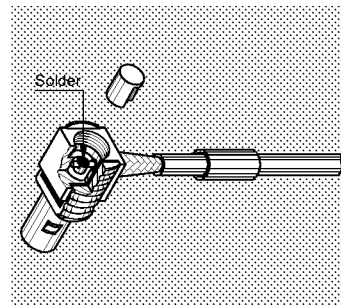


2. Cable terminating

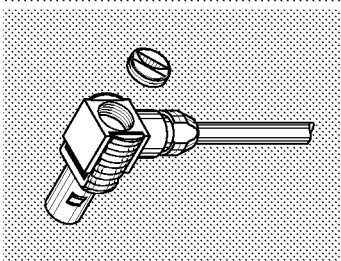
2.1 Place the cable crimp ferrule ① on the cable and widen the braiding.



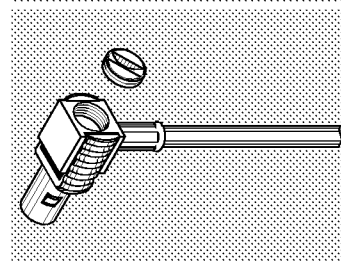
2.2 Slide the assembly into the connector shell ③ and tighten the collet nut ① using the appropriate tool to a torque of 0.25 Nm (see "Tooling" on page 31 and 32). Check that the cable conductor rests in the contact slot, solder the conductor through the hole.



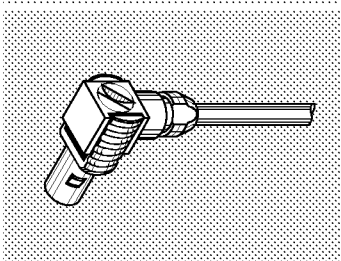
2.2 Slide the cable into the connector shell ②. Check that cable conductor rests in the contact slot, tin solder the conductor through the hole. Slide the crimp ferrule ① over the braiding until it reaches the connector shell ②. Crimp with the LEMO crimp tool using the hexagonal opening (see "Tooling" on page 32).



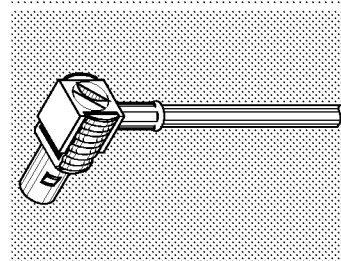
2.3 Place the insulating sleeve ④ over the soldered contact.



2.3 Place the insulating sleeve ③ over the soldered contact.



2.4 Close the access hole with the flat screw ⑤. Push the strain relief (if used) onto the collet nut ①.



2.4 Close the connector hole with the flat screw ④. Push the strain relief (if used) onto the crimping tube ①.

Note: these terminating instructions apply to the following models:

M6 = FLA

Note: these terminating instructions apply to the following models:

M7 = FLS, FLV